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**MODERATING EFFECT OF ACCESS TO FINANCE
ON TOTAL QUALITY MANAGEMENT, MARKET
ORIENTATION, ENTREPRENEURIAL ORIENTATION OF
SMALL AND MEDIUM ENTREPRISES PERFORMANCE
IN NIGERIA**



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**DOCTOR OF PHILOSOPHY
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IN NIGERIA**



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**Thesis Submitted to
School of Business Management,
Universiti Utara Malaysia,
in Fulfillment of the Requirement for the Degree of Doctor of Philosophy**

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ABSTRACT

Past literature reported a mixed influence of total quality management, market orientation, entrepreneurial orientation, and performance of small and medium enterprises (SMEs). Thus, suggesting the need for the incorporation and testing of the effect of a moderating variable due to the inconsistency in the research findings. To address this theoretical gap, the present study used resource-based view and pecking order theory to examine the moderating role of access to finance on the relationships between total quality management, market orientation, entrepreneurial orientation, and SME performance. The study employed stratified random sampling and self-administered questionnaire techniques in collecting data from SMEs operating in the Kano, Kaduna, and Sokoto states in the north-west geopolitical zone of Nigeria. Based on the response rate of 302 questionnaires, hypotheses were tested using Partial Least Squares Structural Equation Modelling (PLS-SEM). The findings of the study showed that total quality management, market orientation, and entrepreneurial orientation were significant predictors of SME performance. The results of the study also indicated that access to finance moderated the relationship between total quality management and SME performance. Also, access to finance moderated the relationship between market orientation and SME performance. A similar result was also found for the relationship between entrepreneurial orientation and SME performance. The study may benefit SME owners/managers, small and medium enterprises development agency of Nigeria (SMEDAN), manufacturers association of Nigeria (MAN), as well as governments at various levels. The study may also serve as a reference for future studies. Finally, the limitations, implications, and suggestions for future research are discussed.

Keywords: total quality management, market orientation, entrepreneurial orientation, access to finance, SME performance

ABSTRAK

Kajian terdahulu melaporkan terdapat pengaruh yang bercampur antara pengurusan kualiti total, orientasi pasaran, dan orientasi keusahawanan dengan prestasi industri kecil dan sederhana (IKS). Ketidaktekalan dapatan kajian lepas mewajarkan perlunya kesan pemboleh ubah penyederhana disertakan dan diuji. Bagi memenuhi lompong teoretis, kajian ini menggunakan pandangan yang bersandarkan sumber dan teori susunan hierarki untuk menyelidik peranan akses kepada kewangan sebagai penyederhana dalam hubungan antara pengurusan kualiti total, orientasi pasaran, dan orientasi keusahawanan dengan prestasi IKS. Kajian mengguna pakai persampelan rawak berstrata dan teknik soal selidik yang ditadbir sendiri untuk mengutip data daripada IKS yang beroperasi di negeri Kano, Saduna dan Sokota di zon geopolitik barat laut Nigeria. Hipotesis diuji dengan menggunakan model persamaan berstruktur kuasa dua terkecil separa berdasarkan kadar maklum balas daripada 302 borang soal selidik. Dapatan kajian memperlihatkan bahawa pengurusan kualiti total, orientasi pasaran, dan orientasi keusahawanan merupakan peramal prestasi IKS yang signifikan. Hasil kajian juga menunjukkan bahawa akses kepada kewangan bertindak menyederhana hubungan antara pengurusan kualiti total dengan prestasi IKS. Selain itu, akses kepada kewangan juga menyederhana hubungan antara orientasi pasaran dengan prestasi IKS. Dapatan yang sama turut ditemui untuk hubungan antara orientasi keusahawanan dengan prestasi SME. Kajian ini mungkin bermanfaat kepada pemilik/pengusaha IKS, agensi pembangunan industri kecil dan sederhana Nigeria (SMEDAN), pertubuhan pengilang Nigeria (MAN) dan pihak kerajaan pada pelbagai peringkat. Kajian juga mungkin boleh bertindak sebagai rujukan untuk kajian akan datang. Akhir sekali, batasan kajian, implikasi, serta saranan untuk kajian pada masa akan datang turut diketengahkan.

Kata kunci: pengurusan kualiti total, orientasi pasaran, orientasi keusahawanan, akses kepada kewangan, prestasi IKS

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LIST OF ABBREVIATIONS

AF	Access to Finance
CBN	Central Bank of Nigeria
CRS	Corporate Social Responsibility
EO	Entrepreneurial Orientation
FCT	Federal Capital Territory
GDP	Gross Domestic Product
LO	Learning Orientation
MAN	Manufacturers Association of Nigeria
MO	Market Orientation
NBS	National Bureau of Statistics
PLS	Partial Least Squares
POT	Pecking Order Theory
RBV	Resource Based View
SEM	Structural Equation Model
SMEDAN	Small and Medium Enterprise Development of Nigeria.
SMEs	Small and Medium Enterprises
SPSS	Statistical Package for Social Science
TQM	Total Quality Management

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

The performance of small and medium enterprises (SMEs), has been creating an immense volume of discussions among researchers, scholars, business practitioners, as well as policymakers. So, the features and determining factors of the SMEs performance have been and at the same time will be a focus of interest and debate continuously (Ibrahim & Mahmood, 2016; McKelvie & Wiklund 2010). Hence, research efforts are being made endlessly to comprehend how the SMEs performance could be further enhanced and developed. Therefore, these magnificent efforts are imperative since the SME sector is recognized as one of the country's engines of economic growth which is of paramount importance (Ismail, 2018; Kassim & Sulaiman 2011).

Furthermore, SMEs are widely recognized as one of the critical national development mechanisms in technologically as well as industrialized developed and undeveloped countries (Aigboduwa & Oisamoje, 2013; Osalor, 2012; Lai & Arifin, 2011). Likewise, the SME sector also served as an economic reviver for many countries particularly in Sub-Saharan Africa (SSA) (Ismail, 2018; Babajide, 2011). In addition, other scholars were of the view that in many economies, SMEs account for a greater part of the productive individuals as a prime mover (Aremu & Adeyemi, 2011; Harash, Al-Tamimi & Al-Timimi, 2014; Rogo, Shariff & Hafeez, 2018). Thus, SMEs served as an important driver and yardstick in the provision of employment, job creation and poverty

reduction, industrialization, modernization, urbanization, and qualitative life to the citizenry (Aremu & Adeyemi, 2011; Eze, Eberechi, Chibueze, Osondu & Ayegba, 2016; Ismail, Abdelrahman & Majid, 2018; Tom, Glory, & Alfred, 2016; Rogo, Shariff, & Hafeez, 2017a). According to Burli, Kotturshettar, and Kalghatgi (2011), SMEs are also capable for the provision of economic growth and progress in relation to business opportunities than the large industrial sector globally.

For the above reasons, SMEs gained a wonderful gross of attention globally, at the same time give a contribution to employment opportunities, social and economic growth as well as nations' productivity higher than big business organisations (Aminu & Shariff, 2015a; Farouk & Saleh, 2011; Hafeez, Shariff, & Lazim, 2012; Jasra, Khan, Hunjra & Rehman, 2011). In another development, apart from employment generation, SMEs also served as the source innovation, which in turn stimulates the building of capacity and skills diffusion as well as the bridging stone between large national and multinational enterprises (Al-Swidi, Huque, Hafeez & Shariff, 2014; Mahmood & Hanafi 2013; Rahnema, Mousavian, Eshghi, & Alaei, 2011; Shehu & Mahmood, 2014a; Syed, Shah, Shaikh, Ahmadani & Shaikh, 2012).

Thus, according to Egena, Ngovenda, Theresa, and Bridget (2014), SMEs in terms of global perspective are playing a significant role with regards to its magnificent contributions to the average developed economies, its contribution to the gross domestic product (GDP) amounts to 65% and 55% to employment rate. In the light of the above contributions given by the above-mentioned scholars, some of the contributions of

SMEs with the statistical figures particularly, in relation to GDP and employment level are discussed below in Table 1.1.

Table 1.1
Fact and figures of SMEs' Contributions in some selected countries around the globe

Country	GDP	Employment	Year	Source
Australia	55%	65%	2016	Abubakar (2016)
South Korea	55%	70%	2016	Abubakar (2016)
U K	51%	54%	2016	Naala (2016)
China	60%	75%	2017	Ismail (2018)
Malaysia	37%	65%	2017	SME Corporation Malaysia (2017)
India	30%	60%	2017	Ismail (2018)
Pakistan,	30%	35%	2015	Sharafat, Rashid and Khan (2014)
Ghana	70%	80%	2016	Larry (2016) and Ndumanya (2013)
Kenya	98%	-	2016	Kenya Private Sector Alliance (2016)
South Africa	55%	70%	2016	PricewaterhouseCoopers (2016)
Nigeria	48%		2017	Egbesola (2017) and Ismail (2018)
Taiwan	55%	70%	2016	Abubakar (2016)

Going by the Table 1.1 above, SMEs' contribution in relation to the economic growth as well as development in conjunction with its statistics in the United Kingdom (UK) as one of the developed nations to its GDP is 51% and employment accounts to 54%. Equally, SMEs contributions in Taiwan amount to 55% of its GDP and to the employment rate is 70%. Nevertheless, in South Korea, SMEs has contributed 55% to its GDP and 70% to its employment rate (Abubakar, 2016; Aminu & Shariff, 2015a; SMEDAN, 2012). Also, in Australia, SMEs has contributed 55% to its GDP and 65% to its employment rate (Abubakar, 2016).

In contrast, in developing countries like Malaysia, the SMEs are regarded as the bedrock of economic growth in advancing industrial development in which it, has contributed 65% in favor of employment, GDP 37%, respectively (SME Corporation Malaysia, 2017). Thus, SMEs have a very crucial role in the Malaysian economy as a key supplier and service provider of the big companies including multinational as well as transnational corporations so as to transform into a developed nation (Mokhtar, Yusoff, & Ahmad, 2014; Rahim, Mahmood & Masrom, 2015; Yunoh, & Ali, 2015). Similarly, SMEs in countries like South Africa and China have contributed 70% and 75% to employment, as well as 55% and 60% of GDP respectively (Ismail, 2018). Accordingly, SMEs in Ghana have contributed economic 70% of GDP and 80% in favor of employment (Larry, 2016; Ndumanya, 2013). Likewise, in India, the contribution of SMEs is 30% to its GDP as well as 60% to its level of employment respectively (Faloye, 2015; Ismail, 2018). More so, in Kenya, the contribution of SMEs is 98% to its GDP (Kenya Private Sector Alliance, 2016).

Although, in the context of Nigeria, as an emerging economy and developing country, SMEs amounts to 17, 284, 671, and generated employment for 32,414,884 people (Matzdorf, 2012). However, Small and Medium Enterprises Development Agency of Nigeria [SMEDAN] (2013), in its latest survey report, has indicated that the official total number of MSMEs in Nigeria is 37,067,416; micro businesses stand at 36,994,578, small businesses stand at 68,168, while medium enterprises stand at 4,670 (Ismail, 2018), with a relative contribution to economic growth and development amounting to 48.47% to GDP (Egbesola, 2017).

Yet, SMEDAN (2012) survey reports findings had portrayed that the SMEs' contributions to employment and GDP stood at 25% and 46.54% respectively, with an estimated mortality rate of 80% before their first five years of establishment (Aminu, 2015; SMEDAN, 2013). Also, though, there was a tremendous improvement as depicted in the survey report of the SMEDAN in 2013. However, the contribution of SMEs to the economy of Nigeria in 2014, was virtually ten (10%) percent (Gbandi & Amissah, 2014). This signified an insignificant contribution of the sector to the economy as well as the low performance of SMEs in Nigeria. Eventually, SMEs performance in Nigeria is considered too low when compared to that of SMEs in other African countries like Ghana, Kenya, and South Africa (Abubakar & Mahmood, 2016; Aminu & Shariff, 2015a; Ndumanya, 2013), as well as technologically industrialized economies (Eniola, 2014; Agwu & Emeti, 2014; Aliyu & Bello, 2013). Thus, SMEs in Nigeria must identify factors that can enhance their performance level and as well, increase their contribution to the growth of the Nigerian economy.

With regards to the performance of SMEs, many empirical studies have been conducted. Hence, researchers have empirically established that factors such as total quality management (TQM) (Jabeen, Shehu, Mahmood, & Kofarmata, 2014; (Al-Swidi & Mahmood, 2012; Herzallah, Gutiérrez-Gutiérrez & Munoz Rosas, 2014), market orientation (MO) (Osmond & Paul, 2016; (McLarty, Pichanic, & Srpova, 2012; Suliyanto, & Rahab, 2012; Oyedijo, Idris, & Aliu, 2012), entrepreneurial orientation (EO) (Aliyu, Rogo & Mahmood, 2015; Lechner & Gudmundsson, 2014; Mahmood & Hanafi, 2013; Osman, Ahmad, Rashid & Hussain, 2011a), as well as, access to finance (AF) (Aminu, & Shariff, 2015b) were important determinants of higher performance

among business enterprises. Therefore, the aim of the study is to examine the moderating effect of access to finance on total quality management, market orientation, entrepreneurial orientation and SMEs' performance in Nigeria.

1.2 Problem Statement

The role of SMEs in contributing to the nation's economic growth and development, cannot be overemphasized (Ugoani, & Ibeenwo, 2015; Ismail, 2018). However, significant proportions of the Nigerian SMEs wind up prematurely (Aremu, & Adeyemi, 2011). According to Anudu (2016), within the period 2015-2016, 222 SMEs have folded up. The death of the Nigerian SMEs was connected with poor performance (Ibru, 2013). Poor implementation of quality management, poor access to markets, and low level of entrepreneurial competence together with the conservative mindset on the issue of entrepreneurial business risk aversion, entrepreneurs' lack of accessibility in terms of cost-effective as well as efficient finance among others were the predicaments that impinged the performance and contribution of SMEs to the Nigerian economy (Aminu & Shariff, 2015b; Eneh, 2011; Okpara, 2011; Rogo, Shariff & Hafeez, 2017b; SMEDAN, 2013).

Also, literature showed that SMEs in the less developed nations are faced with the lack of access to financial resources, poor market orientation among others that negatively affect their performance (Osmond & Paul, 2016; Oyedijo, Idris, & Aliu, 2012). In the same vein, the Nigerian SME low performance is attributed to the poor market orientation (McLarty, Pichanic, & Srpova, 2012; Rogo, Shariff & Hafeez, 2017b; Suliyanto, & Rahab, 2012), poor entrepreneurial orientation (Afolabi, 2013, Ibrahim &

Mahmood, 2016; Ibrahim & Shariff, 2016) and inadequate access to finance (Bouri, Breij, Diop, Kempner, Klinger, & Stevenson, 2011). Hence, the performance of the SMEs became a critical issue that demands further investigation in the Nigerian context.

A number of researchers have investigated how the performance of SMEs is influenced by strategic orientation factors. The studies of Jabeen, Shehu, Mahmood, and Kofarmata (2014) have empirically established that total quality management enhances the performance of SME. Also, Abubakar and Mahmood (2016) have empirically found that TQM has a significant influence on SME performance. Equally, extant empirical studies (e.g., Almansour, 2012; Al-Swidi & Mahmood, 2012; Kober, Subraamanniam & Watson, 2012; Nekoueizadeh & Esmaeili, 2013; O'Neill, Sohal, & Teng, 2016) have linked TQM to various aspects of SME performance, such as sales growth, market shares, customer satisfaction profitability, and among others. Relatedly, the study conducted by Talib, Rahman, and Qureshi (2013) established a significant relationship between TQM practices SME performance in India. Likewise, a study conducted in Kano, Abubakar, and Mahmood (2016) found that total quality management was significantly associated with the performance of SMEs.

In contrast, Augusto, Lisboa, and Yasin (2014) studied the three dimensions' effect of TQM. They found a mixed finding. The influence of TQM is significant in product innovation and organizational performance. However, the effects of TQM on organizational innovation and process innovation were not found to be significant. Accordingly, other empirical study conducted by Duarte, Brito, Di Serio and Martins (2011) among the 1200 sampled firms, in which, the findings of their study revealed

that a negative relationship between TQM and the profitabilities as well as growth aspects of São Paulo firms' performance with both was established. Therefore, Meftah Abusa and Gibson, (2013), opined that the issues of inconsistent findings of the TQM – firm performance literature necessitates the conduct of a further study on the TQM and firm performance' relationship, principally in the developing nations in which lack of appropriate studies prevailed.

Another important construct that impacts the performance of SMEs is the Market orientation (MO). Though, the studies of Jaiyeoba (2014) and Rogo, Shariff, and Hafeez (2018) have reported that there is a significant positive relationship between the study's constructs. Yet, negative findings were reported in the studies conducted among some of the Nigerian SMEs particularly in the north-western zone (Shehu & Mahmood, 2014a; Rogo, Shariff & Hafeez, 2017b). Nevertheless, Shehu and Mahmood (2014a) reported a negative finding, whereas, Asomaning and Abdulai (2015); Micheal and Gow (2011); Mokhtar, Yusoff, and Ahmad (2014), reported mixed findings between market orientation and SMEs performance relationship, as the findings among the components of market orientation critical success factors and SMEs performance is mix. Specifically, two factors which comprise: customers focus as one of the dimensions of entrepreneurial orientation and that of market dissemination posited significant relationships with the performance of SMEs. However, other important factors, such as market intelligence and also responsiveness did not posit any significant influence on the performance of the SMEs. Therefore, more needs to be investigated on MO - performance relationship.

Likewise, after deliberating on MO and SMEs performance above, previous studies have also emphasized on yet another significant variable and SMEs performance relationship which is regarded as another one of the important strategic orientation constructs known as entrepreneurial orientation (EO). The entrepreneurial orientation (EO) to performance reported different findings, some of the researchers that reported mixed findings are Boso, Cadogan, and Story (2012); Fatoki (2012); Gupta and Batra (2015); Mehrdad, Abdolrahim, and Hamidreza, (2011). The study of Sharma and Dave (2011), reported a significant and positive relationship, whereas, Afolabi (2013) reported a negative result. In addition, the study of Dzulkarnain, Abdullah, and Shuhymee (2014) found that entrepreneurial orientation dimensions' constructs of autonomy, risk-taking, and competitive aggressiveness have no significant relationship with the SME's business performance. Also, Ibrahim and Mahmood (2016) reported a significant and positive relationship; whereas, Anderson (2010) reported a negative result. The above findings signified that entrepreneurial orientation (EO) has a differential outcome on organizational performance (OP) constructs.

Based on the inconclusiveness of prior studies, Osman, Ahmad, Rashid and Hussain (2011a) emphasized that when entrepreneurial orientation is integrated with market orientation will surely restore the performance of SMEs in the sense that both constructs (EO and MO) can improve the competitive ability of the business by helping them to innovate and as well, respond in a proactive manner to both market demands and customers which in turn results to competitive performance.

In another development, Harash, Al-Timimi, and Alsaadi (2014), opined that access to finance affects the performance of SMEs, in the sense that adequate finance can assist small business firms to achieve much possible job growth rate at an advanced level, but at the same time, the business firms are more likely to be stunted or even go out of business, because of financial constraint. In addition, Ibrahim and Shariff (2016) suggested for the inclusion of access to finance (AF) as a moderating variable between strategic orientations constructs such as TQM, MO and EO and business performance relationship. Similarly, Bing and Zhengping (2011) suggested that there is a need to have a study that will investigate the effect of moderator on strategic orientation and SMEs' performance relationship. More so, Moorthy, Tan, Choo Wei, Ping and Leong (2012) argued that there is a need to integrate many independent variables in the strategic orientation model and at the same time, test the effect of a moderating variable on the strategic orientation –firm performance relationship.

Hence, conflicting finding in relation to strategic orientation constructs and the performance of SMEs is reported by the previous literature, Osman, Rashid, Ahmad and Hussain (2011b) argued that inclusion of a moderating variables can explain when and how these constructs relate to the performance of the SMEs that had not been investigated thoroughly, in terms of theoretical or even empirical literature, as a moderator may likely weaken or strengthen the relationship amid the strategic orientation practices and performance of SMEs. To address this lacuna, the present study adopts AF as a moderator on the relationship between the independent variables and the dependent variable, particularly as findings of prior empirical studies on the relationship between TQM, MO, EO and firm performance are inconclusive. This is

consistent with an argument on moderation proposed by Baron and Kenny (1986) that when there is inconsistency in findings, then there is the possibility of moderation between the independent variable (s) and dependent variable. Thus, this study examines the effect of access to finance as a moderator amid strategic orientation practices and the performance of SMEs in Nigeria.

The research model is in line with the pecking order theory and resource-based view, which postulated that both financial resources and strategic orientation resources such as TQM and EO can strengthen the performance of SMEs. Based on the literature gaps and suggestions given by various scholars, this study is designed to examine the relationship between TQM, MO, EO and SMEs performance, with access to finance as a moderating variable as a single model.

1.3 Research Questions

Based on the problem statement mentioned above, the following research questions had been raised to provide the answers:

- 1) Does TQM significantly relate to the performance of SMEs in Nigeria?
- 2) Does MO significantly relate to the performance of SMEs in Nigeria?
- 3) Does EO significantly relate to the performance of SMEs in Nigeria?
- 4) Does access to finance moderate the relationship between TQM and the performance of SMEs in Nigeria?
- 5) Does access to finance moderate the relationship between MO and the performance of SMEs in Nigeria?

- 6) Does access to finance moderate the relationship between EO and the performance of SMEs in Nigeria?

1.4 Research Objectives

So, in line with the above-mentioned research questions, the main objective of this study is to examine the moderating role of access to finance on the relationship between TQM, MO, EO, and the performance of SMEs in Nigeria. Thus, the specific research objectives are as follows:

- 1) To examine the relationship between TQM and the performance of SMEs in Nigeria;
- 2) To examine the relationship between MO and the performance of SMEs in Nigeria;
- 3) To examine the relationship between EO and the performance of SMEs in Nigeria;
- 4) To examine the moderating effect of access to finance on the relationship between TQM and performance of SMEs in Nigeria.
- 5) To examine the moderating effect of access to finance on the relationship between MO and performance of SMEs in Nigeria.
- 6) To examine the moderating effect of access to finance on the relationship between EO and performance of SMEs in Nigeria.

1.5 Significance of the study

The significance of the study is based on the findings of the researcher's that has provided a better understanding of the relationship between TQM, MO, EO and the performance of SMEs in the Nigerian economy. Specifically, that the present study has introduced access to finance as a moderator on its relationship with the total quality

management, market orientation, entrepreneurial orientation and the performance of SMEs in the Nigerian economy. The significance can be seen from both the theoretical to practical contributions

1.5.1 Theoretical Contribution

The theoretical contribution of this study has been used in testing the relationship between these three important constructs empirically that consist the combination of strategic management and that of strategic orientation to performance relationship will now be extended to SMEs, thereby looking at the study variables from the SMEs unit of analysis (owner/managers) viewpoint. Similarly, the research work will contribute to the existing literature by adding a moderating variable which other studies fail to consider. Hence, previous studies have been in agreement on the significance of these various constructs in the enhancement of SMEs' performance.

However, several studies that examined or even investigated the significant role in relation to the impact of TQM and EO, on SMEs' performance (Al-Swidi & Mahmood, 2012) or (TQM) practice, competitive strategies, cost leadership and differentiation on SMEs' performance (Herzallah, Gutiérrez-Gutiérrez & Munoz Rosas, 2014) or MO critical success factors on SMEs' performance (Mokhtar, Yusoff & Ahmad, 2014) or even the mediating role of access to finance on the relationship between EO, MO, learning orientation (LO) and technology orientation (TO) to SMEs performance (Aminu, 2015). Hence a study with the combination of these important constructs of TQM, MO, EO with moderating effect of access to finance in one model to SMEs performance to the best of the researcher's knowledge very little studies has been done

(if any). Therefore, this study will serve as one of the few studies that examine the relationship between TQM, MO, EO and the Nigerian SMEs' performance.

In addition, this study will contribute, especially when it comes to the testing of the moderating effect of access to finance when it comes to the performance of SMEs in Nigeria. This study is helpful, particularly when combining with RBV and POT theories to establish the research framework. More importantly, the study when conducted properly will surely contribute to the body of knowledge particularly in academia and other entrepreneurial research institutes as well as individual researchers in general. The methodology adopted in the study is tested within the African context.

1.5.2 Practical contributions

The practical contributions of the present study will help government, business management practitioners, students, agencies and other policymakers as well as owner/managers in knowing what contributes to their individual performance. Accordingly, the small and medium enterprise development agency of Nigeria (SMEDAN) is another target beneficiary of the outcome of this very research work. Furthermore, the significance of this study in relation to academics, the researcher has a believe that there is a need to undertake this study so as to reaffirm the unidimensional measurement of the concept of EO empirically as employed in the work of Kraus, Rigtering, Hughes, and Hosman, (2012), Kreiser and Davis (2010), and Norshafizah (2012) despite the fact that, Lumpkin and Dess (1996) had conceptualized the EO as a construct of five multidimensions namely: innovativeness, proactiveness, risk-taking, competitive aggressiveness, and autonomy. Even though, there was a challenge on the

dimensionality of the concept of EO thus, a meta-analysis of 51 studies that are empirically conducted by Rauch, Wiklund, Lumpkin, and Frese, (2009) has found that majority of the empirical studies used the concept of EO as unidimensional through combining these very dimensions that are intercorrelated which consist of innovativeness, proactiveness, and risk-taking into a single (one) latent variable as originally proposed by Khandwalla (1977), Miller and Friesen (1982), and Miller (1983).

Accordingly, later Covin and Slavin (1986, 1989, 1991), Covin and Miles (1999), Covin, Green and Slevin (2006) had supported this viewpoint by arguing that even if the three dimensions may differ autonomously (independently), it is their simultaneous existence (presence) as well as their amalgamated impact that qualifies individuals or organisations to be regarded as entrepreneurial. Hence, Miller (2011) reiterated that once any one of dimensions is absent, then the presence of the other two dimensions may render the element (unit) as not entrepreneurially behaving. Therefore, the current consent in the literature relatively appears to support the theoretical as well as operationalized definition viewpoints on its unidimensionality of the construct (Covin & Lumpkin, 2011; Covin & Wales, 2012). Finally, it will help in making relevant recommendations and data based on researchers, policy maker (s), and the government at various levels.

1.6 Scope of the study

The present study is designed to examine the moderating effect of access to finance with regards to the relationship amid TQM, MO, EO and the performance of SMEs in

Nigeria. The study covers SMEs in three states, located in northwestern zone of Nigeria, which is Kano, Kaduna, and Sokoto, as the three states have the highest number of SME (NBS, 2012), and also accounted for largest percentage of entire Seventy-two thousand, eight hundred and thirty-eight (72,838) registered SMEs in the Nigeria (SMEDAN, 2013).

Furthermore, the reason behind choosing SMEs in the northwest zone of Nigeria is that the zone has the highest population compared with the other five geopolitical zones of the Nigerian, and yet, backward in terms of economic growth and employment generation (NBS, 2012; Ramalho, 2014; SMEDAN, 2013). The zone is also backward in terms of awareness with regards to obtaining loans from the commercial banks (SMEDAN, 2013). Hence, the focus of this study is on the significant role of access to finance on the relationship between strategic orientation practices i.e. TQM, MO, and EO and the performance of SMEs in Nigeria. This is consistent with suggestions for further studies given by Jabeen (2014) in relation to these same constructs.

The unit of analysis of this study is organization. Hence, the data of this study is collected from the owners/managers of the SMEs in Nigeria, taken into cognizance time factor, duration of the program (Ph.D.) and other financial predicaments. While stratified random sampling is adopted in sample selection. This study is built on the premise of the RBV theory and the pecking order theory. The statistical analysis used in the study comprised of descriptive, correlation, confirmatory factor analysis, and assessment of measurement model and structural models using SPSS as well as partial least square (SmartPLS).

1.7 Operational definitions

Access to Finance (AF): Access to finance can be referred to those possibilities in which entrepreneurs (owners or managers) can source financial resources (funds) either internally or externally or even both ways with the barest obstacles of the financial as well as non-financial hurdles (Aminu, 2015).

Entrepreneurial Orientation (EO): Entrepreneurial orientation (EO) can be defined as an entrepreneurial behavior that indicates interest in risk-taking through innovativeness, and pro-active manner for better decision-making in operating his or her businesses. (Covin & Slevin, 1989).

Market Orientation (MO): According to Narver and Slater (1990), MO denotes to business organization culture that allows the firm to create the necessary behavior for the purpose of producing higher worth of its goods (products) and services for customers.

Performance: The word performance is referred to as a personal ability to quantify the quantum or level of the success or failure in SMEs (Aminu, 2015). In other words, it refers to the firm desire of success in doing business (Naala, 2016)

Total Quality Management (TQM): The term Total quality management, may be referred to as a strategic management and also a holistic management approach or philosophy targeting at customer needs with the aim of continuous quality improvement

.and other entire organisation's operational activities that may assist in the production and delivery reliability of goods or services, effectively and efficiently more than that of its competitors with the full participation of its entire employees at various units and department for proper inter-functional coordination of that SME (Demirbag, Lenny Koh, Tatoglu, & Zaim, 2006).

1.8 Organization of the thesis

The present study is organized into five different chapters. The first chapter (Chapter1) outlines the introduction, statement of the problem, research questions, research objectives, scope, and significance of the study and definition of terms.

Chapter 2 focuses on the issue of the relevant literature review on the performance of SMEs, TQM, MO, EO, and AF. Thus, the chapter has also reviewed the empirical findings and methods as to the relationship amid TQM, MO, EO, and SMEs performance. In addition, the underpinning theories (resource-based view and pecking order theory) were also discussed in this very chapter.

Chapter 3 describes this study's research methodology. The issue of research framework, together with the hypotheses developed in this chapter was also explained. Furthermore, this particular chapter describes the study's constructs operationalization and instruments' measurement, research design, the population of the study, sample size, the sampling method, together with the strategies as well as the data collection instrument. Hence, the chapter also discusses the data analysis method and that of its

statistical package used in the present study. Lastly, the reliability testing on the issue of pilot study has also been reported.

Chapter 4 in this particular chapter, describes the data analysis statistics of the very data collected for this study, which consists of data examination, data screening, and preparation. Then, the issues of measurement as well as the structural models, that was also assessed by means of the analytical tool, SmartPLS 3.0 software package, in the results of the study were analyzed and also reported. As such, hypotheses' results of the structural model assessment are also reported eventually.

Chapter 5 which is that last but not the least chapter, discusses the findings of the study in line with the research, questions, objectives, and hypotheses. In addition, this very chapter provides the contributions in terms of theoretical and practical as well as the findings' implications of this very study. Thus, the chapter also describes the limitations of the research together with the suggestions for future research direction. Finally, this same chapter presents the study's conclusion.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a literature review of small and medium enterprises (SMEs) performance in Nigeria and will equally establish a linkage between the study's constructs. The constructs involved in the study are SMEs performance, total quality management, market orientation and entrepreneurial orientation, together with the moderating effect of access to finance respectively. Furthermore, in this chapter, a broader overview of the Small Scale and Medium Enterprises in Nigeria and some other countries of the World, that have similar economic growth and development are to be reported. Periodic series of associated research work on the SMEs' performance is to be reviewed; the research methodology, major findings, and conclusions of the research work related to this very study are synthesized very well and reported. Related SMEs' performance literature, more especially those relating to SMEs in developing economies such as Nigeria is reviewed also. The rationale is to enable other researchers to have a clue to an extraordinary area of the research work that needs a new or additional area of study. Furthermore, the chapter had also discussed Resource base view and Pecking order theories as for the underpinning theories used for the purpose of conducting this study.

2.2 Overview of small and medium enterprises (SMEs) in Nigeria

The importance of small and medium scale enterprise in an economy cannot be underestimated. The conclusions of virtually all scholars investigating SMEs' role is

that they contributed positively to a country's gross domestic product "GDP" (Eniola & Entebang, 2015a; Ghazilla, Kundalini, Abdul-Rashid, Ayub, Olugu & Musa, 2015; Mousiolis, Zaridis, Karamanis, & Rontogianni, 2015).

Nigeria is one of the developing nations and also the second largest country in the African continent in which, it is geographically located in West Africa. The country like any other country has the official name, known as the Federal Republic of Nigeria. It is also subdivided into six geopolitical zones which eventually consist of 36 States with Abuja being its Federal Capital. Furthermore, as stated by World Bank (2013), the nation has a population of 173.6 million based on the 2006 Population Census. Likewise, the total numbers of registered SMEs in the Nigerian economy amount to 72,838 in which are categorized; into two main groups in which, some numerical figures such as 68,168 represent the numerical figures of Small Enterprises while, 4,670 served as the numerical figures that represent the Medium Enterprises in the economy (SMEDAN, 2013). In essence, the above written numerical figures portrayed that, 93.59% constituted the statistical percentage representing the number of Small Enterprises while 6.41 represent the statistical percentage representing the number of Medium Enterprises.

The economy of Nigeria is made up of Oil as well as Non-oil income generating sectors, Nigeria as a middle-income generation oil-producing nation, which has almost five million individuals having an income per capita of approximately \$2,200 and virtually most of its citizens are the underprivileged, shares non-producing economy (World Bank, 2013). Although, its foreign exchange earnings come from the revenue generated

from oil and gas, in which it constitutes over 50% of its budgeted revenues, hence the manufacturing sector of the economy use to contribute over, and above income generated from some other sectors of the economy such as construction, hotels and tourism, sectors SMEDAN (2012). In essence, most of its citizens generate their income from the agriculture as well as other business activities of SMEs. Thus, SMEDAN (2013) reported that as mentioned earlier the statistical figures of the SMEs amounts to 72,838 that had registered in Nigeria.

Additionally, SMEs that are officially registered were classified into twelve subsectors as agriculture; financial intermediation; transport, storage and communication; building and construction;; health and social works; manufacturing; hunting, fishing, forestry, mining; poultry and quarrying; hotel and restaurants; wholesale and retail trade; education; real estate and renting; other community, social and personal activities respectively; thus, the majority of the SMEs, particularly, the greater ones, are located on the densely populated areas such as Federal Capital Territory (FCT) Abuja, Kano, Lagos and Port Harcourt (Rogo, Shariff & Hafeez, 2017b; SMEDAN, 2013). However, most of the Micro and Small Enterprises are operating their business activities in so many villages that are scatted all over the nation (SMEDAN, 2013).

In another development, the Nigerian SMEs contribution with regards to employment constituted 25% only, while that of GDP is getting to 46% (Aminu & Shariff, 2015a; Ndumanya, 2013; SMEDAN, 2012). However, the Nigerian SMEs performance expectation is low recently this due to the fact that, its contribution to the nations' GDP is quite discouraging for various reasons to be mentioned below ranging from poor

infrastructural facilities, lack of access to finance easily, lack of technical know-how, unfavourable or aggressive competition by the foreign SMEs in terms of their products or services as argued (Bangudu, 2013; Ndumanya, 2013).

In essence, this validated the current data regarding the rate of the unemployment rate and poverty level in the Nigerian economy, which indicates the unemployment rate and poverty level has not been reducing as expected currently. The living standard of the people below \$1.25 daily increased to 62.8% in the year 2011 from 54% in the year 2010 (Kale, 2012; NBS, 2012). Similarly, the rate of unemployment also escalated from 21.1% in the year 2010 up to 23.9% in the year 2011 (Aiyedogbon & Ohwofasa, 2012). Therefore, the main objective of SMEs is to contribute to nation's GDP through the creation of employment opportunities to serve as sources of supply of raw materials to local and foreign companies, reduction of poverty, wealth creation to owners and managers so as to stimulate real economic growth (Aminu, 2015). Hence, as a result of the vital role played by SMEs in the economic growth and development of the Nigerian economy, it is paramount to this very study, to comprehend and provide a remedy to the poor performance of SMEs in Nigeria.

2.2.1 Definition of Small Scaler and Medium Enterprises (SMEs)

SMEs have been well-defined in diverse ways and from a different perspective. Therefore, different nations provide their specific understandings of the anticipated SMEs role in their economies. Hence, Merino, Monreal-Pérez, and Sánchez-Marín (2015) opine that many countries considered their economic indicators level as well as another industrial developmental level in relation to SMEs' definition. Similarly, the

definition of SMEs can be considered in the context of the SMEs' size or in terms of the number of their employees that are working with that business firm or it can be defined in relation to the total amount of assets and level of their capital employed (Mohammad, 2012; Rogo, Shariff & Hafeez, 2017b; World Bank, 2013).

Thus, the SMEs and large business organizations can differ in term of their criterion that is mentioned above. Furthermore, several SMEs definitions had relied upon the above-mentioned measure of the size of SMEs as well as its total number of employees that are working with that business firm together with the value of its total assets (Bouri *et al.*, 2011; World Bank, 2013). Additionally, European Union (EU) postulates that SMEs is any business organization having a number of employees amid 10 to 250 and also having a revenue that falls between \$10 to \$50 million in terms of volume of sales or the business firm's assets value within \$10 to \$43 million range. Whereas, Inter-American Development Bank stated that SMEs are regarded as any business organization with the maximum number of employees to tune of 100 people and having less than \$3 million in revenue.

Furthermore, the Multilateral Investment Guarantee Agency (MIGA) in association with the International Finance Corporation (IFC) was of the opinion that, any business organization with some number of employees ranging from 10 to 300 people, this is considered as SME. Additionally, a firm is considered as medium enterprise if it has less than 250 number of employees, and also have the sales volume of less than €50 million as well as with the balance sheet of not less than €43million (Bouri *et al.*, 2011; Rogo, Shariff & Hafeez, 2017b).

Consequently, SMEs' contribution to the economic growth and development alongside with their statistical figures regarding developed countries can be seen in some economies such as United Kingdom (U K), the SMEs' contribution to the economic growth is 50% to its GDP as well as 54.1% with the regards to its employment level. Furthermore, in Taiwan, the contribution stands at 55% of GDP and 70% with regards to employment. While, South Korea it stands for 55% to GDP and 70% with respect to employment level (Rogo, Shariff & Hafeez, 2017a; SMEDAN, 2012).

2.2.2 Definition of Small Scale and Medium Enterprises (SMEs) in Nigeria

Small and Medium Enterprises (SMEs) need to have a proper definition, this is important in order to distinguish it based on the different types of production units with regards to some important economic indicators such as: number of workers, the values of their fixed assets, their production's capacity, their inputs in terms of their basic features, the level of their advancement in terms of technology, the amount of financial resources invested by the firm, the nature of their management in terms of administrative and so on (Rogo, Shariff & Hafeez, 2017a; SMEDAN, 2012). In business management, various Scholars were of the opinion that, SMEs has no generally accepted definition. This is due to the fact that, the businesses are classified into many categories ranging from the large, medium or small scale, in which this depicts that, it is based on subjective and qualitative judgment (Eniola, & Etebang, 2014).

Therefore, it is very difficult to develop a definition that can be universal in relation to small business this is due to the fact that, the economies of each nation differ, peoples' standard of living, and so on. Different institutions, as well as different countries, use a different yardstick to define the term SMEs. So, this is due to the simple fact that, many characteristics have to be taken, into cognizance with such as nature the processes of the industry in which the firm operates, the personalities of the top-level management, firm's objectives or goals and so on.

Furthermore, the definition of SMEs in the context of the Nigerian economy has its own distinctiveness like that of other nations as discussed above. Thus, some of the SMEs' pointers (indicators) as well as other measures to be taken into consideration so as to classifying SMEs in Nigeria comprise of: a number of workforces, together with their sales' volume, the amount of their assets invested or the mixture of those business firms' indicators and measures or even all as stated. In many economies, small and medium enterprises occupied the large portion of the country's workforce (Rogo, Shariff & Hafeez, 2017b; SMEDAN, 2012). Hence, thereby SMEs gained a tremendous increase of attention globally. The rationale is that SMEs had played a very important role in terms of economic growth and development of several nations' economy (Kadir, Hassan, Yusuf, & Abdulaziz, 2014). Therefore, as far as economic growth, as well as economic development, is a concern, the importance of SMEs can never be overemphasized. Thus, SMEs have some multiplier effects in relation to economic growth and development in the sense that, the sector serves as the means of employment, the generation that foster initiatives which at the end of the day may lead to the capacity building of the employees of the firms (Shehu, 2014).

On the other hand, SMEs apart from employment opportunities provisions and their alike, it also improves per capita income of the people which invariably, increase their purchasing power as well as improving their standard of living, there is also raw materials supply increase, as well as key industries capacity utilization boosting which eventually, enhanced exportation earnings; (Aminu, 2015; SMEDAN, 2012).

Furthermore, according to the World Bank (2013), Nigeria can best be described as the “Federal Republic of Nigeria” officially. It is located in the Western African Region with 36 States and the Headquarters in Abuja, which is termed as the Federal Capital Territory (FCT). Nigeria, on the other hand, has a population of 162, 470,737. Thus, the total number of SMEs in Nigeria amounts to 72,838 with 68,168 termed as small enterprises and 4,670 regarded as a medium. From all indication, we can deduce that Nigeria in relation to SMEs has about 93.59% as small businesses and 6.41% as medium enterprises (SMEDAN, 2013). Similarly, TQM as a significant factor for the purpose of achieving the objectives of the entire SMEs that manufacture goods as well as organizations that renders services played a significant role in the competitive business environment today. This is the fact that, TQM is seen as a competitive advantage source (Al-Swidi & Mahmood, 2012; Herzallah, Gutiérrez-Gutiérrez & Munoz Rosas, 2014).

Consequently, lack of systematic evidence that are empirical in nature with regards to TQM implementations as well as its effects on the SMEs’ performance in a country like Turkey in spite of their attempts on the practicability of TQM implementation together

with its technological advancement are all to no avail (Leavengood, Anderson & Daim, 2014). Likewise, the sector has also been identified with many problems; Oyedijo, Idris, and Aliu (2012) attributed to the poor market orientation as one of the major causes of SME's failure in which, it was supported by Osmond and Paul (2016). Similarly, McLarty, Pichanic, and Srpova (2012) were of the view that poor market orientation served as one of the militating factors related to the low performance of SMEs in the Nigerian economy. The studies of Jabeen *et al.*, (2014) attributed inadequate total quality management as the major cause of SME poor performance. However, Afolabi (2013), came up with the contrary opinion in which he identified that poor entrepreneurial orientation served as the major challenge facing the Nigerian entrepreneurs.

Accordingly, some governmental agencies in Nigeria prior to 1992 such as Centre for Industrial Research and Development (CIRD) as well as the National Economic Reconstruction Fund (NERFund); Nigerian Bank of Commerce and Industry (NBCI), and also the Central Bank of Nigeria (CBN, 2013), gave different definitions of SMEs. Only in the year 1992 that, the National Council on Industry (NCI) came up with one definition. Thus, an enterprise that can be regarded as small when taken into cognizance with developed countries, there is a likely hood that it can become a medium or even big business enterprise in other countries that are not developed such as Nigeria. Any form of a business unit that has a size of labor less than 250 can be termed as SME (Cressy, 2012). On the bases of this definition given above, SMEs may include different forms of business units such as sole proprietorship, partnership or limited liability companies or firms.

However, another definition not similar with the one given by “Small and Medium Enterprises Development Agency of Nigeria” SMEDAN (2012), in the context of Nigeria has referred to SMEs as those enterprises with a number of employees between ten to forty-nine workers(10 to 49 employees), with the total investment amounted to five million Naira (#5,000,000), but the limit of its investment must not exceeding fifty million Naira (50,000,000) with the exception of the cost of land but including financial capital invested in the business. Thus, the enterprises that are medium scale in nature, are those enterprises in which their workforce ranges between fifty to one hundred and ninety-nine employees (50 to 199 employees), with a total cost of capital more than fifty million Naira (#50,000,000), but not exceeding the financial capital of five hundred million Naira #500,000,000), with exceptions of the value of land but together with financial capital.

Table 2.1
Definition and Classification of SME.

S/N	Size Category	Employment	Asset (=N=Million)(excl. land and buildings)
1	Microenterprise	Less than 10	Less than 5
2	Small enterprises	10 to 49	5 to less than 50
3	Medium enterprises	50 to 199	50 to less than 500

Source: SMEDAN (2012)

Consequently, the definition given by SMEDAN (2012) is adopted in this study. This is due to the fact that, it is more recent and also entails incorporating virtually all business organizations, more especially in relation to turnover, when compared with

other definitions. According to Ajonbadi and Mojeed-Sanni (2015), Nigeria is the biggest African country. Accordingly, the National Planning Commission (NPC) of Nigeria stated that the country is progressing towards meeting the vision 2020, in order to achieve it, so as to transform into the industrial-based economy with the aim of becoming one of the twenty leading economies of the world at large, in the year 2020. Furthermore, Eniola (2014), opined that the contribution of SMEs uses to serve as a backbone of any country economic growth. Therefore, SMEs use to provide over 90% of the total employment level within the manufacturing sector and at the same time, provide an aggregate of 70% employment opportunities to the teeming unemployed youth in the nation on yearly bases (Eniola & Ektebang, 2014).

2.2.3 Functions and Importance of Small Scale and Medium Enterprises (SMEs) in Nigeria

The functions of Nigerian SMEs are similar to that of SMEs around the world, SMEs in Nigeria has become a very critical as well as a crucial sector in the economy that is nurturing and nourishing the economic growth and development of the Nigerian economy. In another development, SMEs serves as a very important sector that is breeding new entrepreneurs and is also associated with the crucial role of providing employment opportunities so as to reduce the menaces of the unemployment rate in the economy (Eniola, & Entebang, 2015b). Furthermore, the end result of SMEs' performance is contributing positively to the country's GDP and also to raise the standard of living of the teaming employed youth which will invariably reduce the level of insecurity in the Nigeria economy.

standard of living of the teaming employed youth which will invariably reduce the level of insecurity in the Nigeria economy.

2.2.4 Main Problems and Challenges of Small Scale and Medium Enterprises (SMEs) in Nigeria

Having deliberated on the overview of the Nigerian economy above, it became necessary to also discuss issues particularly with the regards to problems and challenges that are facing SMEs in the Nigerian context; various factors have been identified in several studies as the key problems as well as encounters that are confronting SMEs in the Nigerian economy. Therefore, these forces significantly contribute to the premature death of SMEs in Nigeria (SMEDAN, 2013). Hence, despite the various benefits derived from the Nigerian SMEs, Osmond, and Paul (2016), came up with the following problems that include:

Table 2.2
Problems Confronting the Nigerian SMEs

Problem		Details
Difficulty in Sourcing Financial Resources as Working Capital		Most commercial and merchant banks in the Nigeria economy have not been helpful in complying with the Central Bank of Nigeria guidelines in assisting SMEs through the provision of a required amount of financial resources to start or to boost their businesses. Therefore, one of the common problems that the SMEs are facing is the issues of collateral securities and at many times the banks consider the sector as having the highest degree of risks. Thus, this gave birth to lack of accessing cost-effective sources of financial resources by the entrepreneurs.

Table 2.2 Continued

Problems	Details
Shortage of Skills	Inadequate experience as well as a desire to operate with limited openness on the part of the proprietor leads many SMEs to employ semi-skilled or even unskilled labor. This usually affects the level of productivity, restrains expansion and hinders attractiveness.
Policy Implementation Problem and poor market access	Implementation problem is not limited to SMEs but to the entire Nigerian economy. There are a number of initiated policies that are very good in nature at several times as well as situations by different administrations, but in Nigeria such as National Directorate of Employment (NDE), Industrial Training Funds (ITF) National Poverty Alleviation Program (NPAP), Youth Enterprise With Innovation in Nigeria (YouWiN) and so on but not well implemented. However, even those entrepreneurs that managed to produce, for one reason or another they may not access a market for their products or they may not withstand competition.
Poor administration and Lack of Technical know-how	The transactions of most of the SMEs are without proper records in terms of accounting their business activities, inflexibility and lack conducive working environment for their employees, which will inevitably affect the overall effectiveness of managing the SMEs. Additionally, there is obsolete technology that led to lack of commitments to quality standards and at the same time; there is the conservative mind-set of the entrepreneurs with regards to decision making and risk taking.

Source: SMEDAN (2013)

Further issues identified by Okpara (2011) identify similar factors. Those factors identified include lack of basic infrastructure, inadequate sources of finance, unfavorable government policies, lack of investment in agriculture, the high threat of investment due to uncertainty, low investors' confidence, high production cost, insufficient institutional support, and poor access to business credit as well as the unfavorable business environment. Thus, a similar study needs to be conducted.

Similarly, according to SMEDAN (2013) in its selected survey findings opined that, the practical problem facing SMEs' operations in the Nigerian economy is more or less related to the obsolete technology which has to do with the lack of sophisticated machinery and qualified personnel in essence, that have a negative impact on total quality management. Another issue is that of poor market orientation which stands as another crucial issue that impinges on Nigerian SMEs' gross performance due to the nonchalant attitude towards the needs and wants of the customers. Additionally, there is also the problem of accessing finance in form of loans at a bearable interest rate from the financial institutions. Furthermore, the issue of inconsistency in government policies also leads to poor entrepreneurial orientation, another issue is that of poor infrastructure also hinders the entrepreneurial orientation; so also, that of the problem of multiple taxations served as another hurdle to the Nigerian SMEs growth and development.

Therefore, in summary, the following are identified as the major problems and challenges related to the SMEs of the Nigerian economy which include: lack of enough capital, deficiency in terms of professional advice in relation to the nature as well as the type of business to venture into, poor marketing research, incapability to employ the right caliber of staff, lack of patronage of locally manufactured goods, poor management strategy, too much reliance on foreign manufactured goods, the irregular and poor supply of electricity, unfavorable policies for business startup from the government, poor and lack of adequate water supply. inconsistent government policies, political instability, poor policy implementation, raw material sourcing problem, lack of entrepreneurial spirit, competition with cheaper foreign imported

goods, inadequate business plan, the problem of inter-sectoral linkages given that most large-scale firms source their raw material from overseas instead of sub-contracting to SMEs, as well as an obsolete technology that has negatively affected total quality management implementation, lack access to finance, poor market orientation as well as poor entrepreneurial orientation.

2.3 Small Scale and Medium Enterprises Performance

Numerous definitions were stated by various scholars in management sciences with regards to, what performance of an organization is all about. The term performance can be regarded as the yield derived from the business enterprises that can be measured against its resources that are limited (Ibrahim & Mahmood, 2016). The performance measure can be understood better, once business organisation will enable its top management officials to concentrate their attention on the individual units of that very organisation that require proper enhancement via appraising their work in progress with regards to quality, time as well as their cost of production when compared with some other factors and their maintenance in those areas with the higher productivity level (Shehu, 2014; Tomlinson, 2011). Therefore, in order to assess the performance of an organization for either short as well as long terms objectives, the business organization is required to scan through globalization as well as competitive business environment critically. Thus, those factors to be considered in determining performance measures of an organisation may comprise: human resource management, innovation, productivity, quality of their product and services, liquidity, profitability and their market share (Aliyu, Rogo & Mahmood, 2015; Jabeen *et al.*, 2014; Rogo, Shariff & Hafeez, 2017a; Shehu & Mahmood, 2014b).

Furthermore, Kamyabi and Davi (2012), opine that performance of an organization can be termed as the worthiness of an organisational level with the regards to its financial resources which may comprise the level of its investment, the margin of profit as well as its sales' growth. Hence, organizational performance can be considered in terms of its measurement in relation to the financial ability of the SMEs with the regards to factors like their investment level, level of profits, and sales growth. Similarly, Akande (2011), defined, the performance of an organization as an ability of an entrepreneur to evaluate business opportunities in order to take advantage of making some financial gains for his resources invested in that business. As such, a business can succeed irrespective of its size (big or small), when it is efficiently managed. Therefore, SMEs' performance can also be viewed in relation to its organizational objective's viewpoints particularly, in terms of return on assets, return on equity as well as sales growth volume (Rogo, Shariff & Hafeez, 2017a; Shehu, 2014).

However, prior scholars' opinions stated above, organizational performance can be observed from two perspectives: Financial and non-financial respectively (Ibrahim & Shariff, 2016; Minai & Lucky, 2011). Accordingly, prior researchers had a fondness on the financial performance issue more than that of the non-financial performance in measuring the overall organizational success (Rogo, Shariff & Hafeez, 2017a; Zand, Dahim, Shayegh, & Soltanieh, 2015). Therefore, the present study is based on the both SMEs' financial and non-financial performance in Nigeria.

In other words, it is not something amazing in management aspect in totality to use the word 'performance'. For instance, performance management, an employee performance evaluation or performance assessment, SMEs' performance, or even performance measurement, are put in used. Despite the magnitude of using the word, it is specifically meaningful and still relative to many business literature, be it large or small businesses. Therefore, the studies of SMEs' performance have been undertaken by many researchers, the majority of them have centered on studying the determinants of SMEs' performance, in which a lot of constructs have been posited. Thus, according to Mohammed Sani, Puspa Liza, Zainudin, Izah, Azman, and Ali (2015), the performance of SMEs can be seen as the manner in which how enterprises are able to provide satisfaction (value) to their customers as well as its stakeholders. This signifies, the extent to which how the organizational resources are effectively and efficiently managed.

In the same vein, SMEs' contribution to the economic growth as well as development together with its statistical figures of the developed countries can be perceived in a country such as the United Kingdom (U K), the SMEs' contribution in relation to its GDP amounts to 51% and 54.% of employment in terms of the country's economic growth (Naala, 2016). Though, in South Korea and Taiwan, the contribution to its GDP amount to 55% and 70% in relation to the level of its employment; whereas in Australia SMEs contribution stands at 55% to its GDP and 65% with regards to the level of their employment (Abubakar, 2016).

Furthermore, in the developing countries, of the Asian continent, a country such as China, SMEs' contribution stands at 60% of GDP and 75% with regards to the level of their employment (Ismail, 2018). Similarly, in Malaysia, SMEs has emerged to be the key supplier as well as a service provider to the big companies, including the multinational and transnational corporations (Jebna & Baharudin, 2013). Thus, SMEs in Malaysia had successfully contributed 65% to its employment creation and 37% to its GDP (SME Corporation Malaysia, 2017). Accordingly, in India, SMEs has also contributed 30% of GDP and 60% of employment (Ismail, 2018).

While, other developing countries among the African continent such as Ghana, SMEs' contributions to its economic growth and development stands at 70% to GDP and 80% to employment (Larry, 2016; Ndumanya, 2013). Similarly, in Kenya, SMEs successfully contributed 98% to its GDP (Kenya Private Sector Alliance, 2016). In contrast, in the Nigerian context as the giant of the entire African countries, SMEs contribution to economic growth and development only amounts to 48% to its GDP (Egbesola, 2017; Ismail, 2018). Even though, Nigeria served as the biggest economy among the African countries. It is evidently clear that business firms, SMEs inclusive have been facing some predicaments, such as poor implementation of total quality management practices, poor market orientation, lack of access to cost-effective finances, entrepreneurial orientation deficits, intense competition, incompetent managerial skills and ability in and experience, as well as inadequate innovations capacity, among others (Abubakar, & Mahmood, 2016; Aigboduwa & Oisamoje, 2013; Ibrahim & Mahmood, 2016; Ismail, 2018 ; Naala, 2016).

Therefore, SMEs contribution towards the Nigerian economy in terms economic growth is really underperforming when compared with the other countries in the developed nations as well as most of those that are in developing countries. Hence, the need for undertaking this study so as to increase the Nigeria SMEs performance. Moreover, according to the World Bank (2013), Nigeria can best be described as the Federal Republic of Nigeria officially. The country is located in the Western African Region with 36 States and the Headquarters in Abuja, which is termed as the Federal Capital Territory (FCT). Nigeria, on the other hand, based last Nigerian population census in 2006 the nations' population stands at 173.6 million. Furthermore, the total number of Nigerian SMEs amounts to 72,838 with the statistical figures of 68,168 considered as small business enterprises as well as 4,670 regarded as medium business enterprises. From all indication, we can deduce that Nigeria in relation to SMEs has about 93.59% as small businesses and 6.41% as medium enterprises (Ismail, 2018; SMEDAN, 2013)

Consequently, lack of systematic evidence that are empirical in nature with regards to TQM implementations as well as its effects on the SMEs' performance in a country like Turkey, whereby in spite of their attempts on the practicability of TQM implementation together with its technological advancement are all to no avail (Leavengood, Anderson & Daim, 2014). Hence, TQM as a pervasive contributing factor for the success as well as the survival of both SMEs that of manufactured goods played a significant role in the competitive business environment today. This is due to the fact that, TQM is seen as a competitive advantage source (Abubakar & Mahmood, 2016; Gitangu, 2015). Therefore, the studies of Jabeen *et al.*, (2014) attributed

inadequate attempts on the practicability of TQM implementation together with its technological advancement total quality management as the major cause of SME poor performance. The sector has also been identified with many problems such as poor market orientation (MO) that served as one of the major causes of SME failure (Osmond & Paul, 2016; Oyedijo, Idris & Aliu, 2012). Similarly, poor MO served as great factors related to the SMEs' low performance in the Nigerian economy (McLarty, Pichanic, & Srpova, 2012; Rogo, Shariff & Hafeez, 2017b). However, Afolabi (2013) identified that poor entrepreneurial orientation served as a major predicament facing the Nigerian entrepreneurs.

According to Aminu (2015) and Augustine, Bhasi, and Madhu (2012), the performance of SMEs can be measured in terms of quantity (numerical measures of performance) or quality (non-numerical measures of performance). SMEs' performance, in many management researchers has either been measured using the variables that are objective (Ahmad, Abdullah, & Roslan, 2012), subjective variables (Suliyanto & Rahab, 2012; Tang & Tang, 2012), or both (Augustine *et al.*, 2012; Fornoni, Arribas & Vila, 2012).

Virtually, all studies on large business concerns have adopted measures that are quantitative in nature for organizational performance. In contrast, most studies among SMEs conducted, have used measures that are qualitative for the SMEs' performance. This is the fact that, it is easier to access information that is relevant from the respondents (Engelen, Gupta, Strenger & Brettel, 2015). While using subjective measures can prompt the individual's experience which can lead to an inaccuracy.

Due to the nature of SMEs in terms of data and other record keeping issues, subjective measures of performance must be considered (Aminu, 2015). Based on this argument, Augustine *et al.*, (2012) were of the view that, the subjective measures comprise of capacity utilization, customer satisfaction, delivery speed, employee satisfaction, flexibility, inventory level production costs, and productivity and supplier satisfaction. While its counterpart, objective measures consist of return on investments, profitability, market share, export, and return on assets.

Therefore, numerous studies associated with SMEs' performance had used different SMEs' resources and at different times, to investigate the factor influencing the performance of SMEs. Thus, Fornoni *et al.*, (2012) as argued in their study that, social capital mediated by access to resources, comprising access to finance, access to production, access to markets and access to information to SME's performance. The researchers also found that the performance of an entrepreneurial venture is influenced by the entrepreneur's access to finance, markets and information. Accordingly, Ahmad *et al.*, (2012) found that short-term debt, long-term and total debt has been used, in order to have effective SMEs' performance.

2.4 Total Quality Management (TQM)

The term, Total quality management (TQM) rooted out when a committee of engineers, scholars as well as top government management were formed in 1949 by the Union of Japanese Scientists and Engineers. Thus, the main objective for its establishment was for the improvement of the Japanese productive capacity as well as enhancing their life quality after World War II (Powell, 1995). So, Philip B. Crosby,

W. Edwards Deming and Joseph M. Juran that were seldom credited with the provision of intuitions towards an understanding of this underline philosophical thinking of principles as well as TQM implementations (Gimenez-Espin, Jiménez-Jiménez, & Martínez-Costa, 2013; Kariuki, & Mburu, 2013; Mazher, Gharleghi & Chan, 2015). In view of that, Panuwatwanich and Nguyen, (2017) were of the view that, in today's globalized as well as competitive physical environment, TQM implementation adoption has been recognized widely as a crucial management strategy for the purpose of survival as well as business organizational successes.

Accordingly, the term TQM can be defined as a holistic management strategy aiming at continuous quality improvement in relation to the overall SMEs' functions so as to produce and at the same time deliver products or services based on customers' needs and wants at a better, cheaper, faster, safer, easier processing cost, more than that of its competitors through entire employees involvement of that particular business organisation under the effective supervision and leadership of their top management officials (Agus, Arawati & Hassan, Za'faran, 2011; Al-Dhaafri & Al-Swidi, 2016; Al Dhaafri, Yusoff, & Al Swidi, 2013; Leavengood, Anderson & Daim, 2014). Likewise, according to Kumar, Garg, and Garg (2011), the term TQM as holistic management strategy served as a mixture of various systems, processes, effective communication, devoted and committed people as well as a proper supporting culture. Additionally, the term TQM centres primarily on the notion of continuous improvement in a steady, integrated as well as systematic involvement of the entire employees so as to satisfy the needs of both internal and external customers of that organisation (Maletič, Maletič. & Gomišček, 2014; Rezaie, Ramayana, Nazari-Shirkouhi & Badizadeh,

2014; Rogo, Shariff & Hafeez, 2017a; Ryu, Lee & Gon Kim, 2012; Wang, Chen, & Chen, 2012).

Similarly, Fu, Chou, Chen and Wang (2015) suggested that TQM as a culture of an organisation dedicated in order to satisfy both internal and external needs and wants of the customers through continuous improvement in the quality of its products or services through the involvement all stakeholders including employees from different departments, sections or even units of that particular business organisation.

Therefore, TQM as a management concept has been in practice over many years and gained more acknowledgment among scholars, managers, as well as management practitioners. However, in spite of this, TQM is said to have inconclusive credit among so many scholars, practitioners and the pioneers of business management philosophy. Thus, this is what makes TQM application widely preferred among some managers even though, other owner/ managers do not consider it but do believe in the concept as a management fashion (Keli, 2015). In addition, in order to meet up the competition challenges globally, a number of SMEs had spent a lot of their financial resources for TQM adoption and implementation purposes (Rogo, Shariff & Hafeez, 2017a). Hence, TQM as a management strategy concept as well as a critical determinant factor for SMEs' survival and success in today's competitive environment, has been regarded as a vital basis of competitive advantage (Gitangu, 2015), innovativeness (Miranda Silva, Gomes, Filipe Lages & Lopes Pereira, 2014), dynamism as well as new business organisational culture (Sinha, Garg, Dhingra & Dhall, 2016).

Regardless of these differences in the concept of TQM acceptance in management, the philosophy has also been implemented in the various human endeavour such as in the hospital (Al-Shdaifat, 2015) in which the scholar concludes that after proper TQM implementation in the study conducted on Jordanian hospitals, there is over 70% variation in term of its process operation. However, it was stated that not all the TQM dimensions were focused on. Thus, the management of the hospital chooses to concentrate more on customers' satisfaction and had paid less attention with the regards to continuous improvement in quality (Suwandej, 2015). Furthermore, it was reported that out of the six (6) dimensions of TQM, four (4) of these dimensions were implemented in schools in relation to school information system hence, concluded that the overall process has appreciated (Srima, Wannapiroon & Nilsook, 2015).

In management, the concept of TQM has been applied in various forms, and the result was found to be promising. Evidence from the work of Tebajjukira and Chandran (2016) evaluating SME's satisfaction towards Islamic banks in Jordan, the overall outcomes of the study concluded that SME's are satisfied with Jordanian Islamic banks in delivering the dimensions of TQM. In summary, it can be deduced from some of the literature reviewed that TQM has yielded positive results on its implementation in any practice in which it was applied. However, not all dimensions are applicable as it is being taught theoretically; different context attracts the different application of TQM dimensions (Mardani, Jusoh, Nor, Soltan, Kish & Lari, 2013).

Meanwhile, the concept of systematic quality management was originally developed in the manufacturing sector. Thus, in the early era of the last century, this very development was spire headed by the USA. Accordingly, after the Second World War, the most significant development happened in Japan and then the field of quality management has to consist some features from both the Western and the Eastern traditions (Barouch & Kleinhans, 2015). In the public sector, systematic quality management was not used to any major degree until the 1990s (Mendoza, 2016). The unwillingness to accept these methods was partly due to a reluctance to use practices from the manufacturing sector in the public sector (Njoroge, 2015). Thus, researchers have revealed a number of examples of the successful usage of systematic quality management in many public service sectors (Lagrosen & Lagrosen, 2015; Njoroge, 2015).

So, in the area of higher education, however, the quality control adoption has been shallow and weakened by the application of academic freedom, as well as being hindered by lack of shared vision and mismatch amid quality management as well as the process of education (Al-shafei, Bin Abdulrahman, Al-Qumaizi & El-Mardi, 2015). Furthermore, this type of culture is usually difficult to combine with the need for teamwork, which is an important feature of all quality management efforts (Katiliute & Neverauskas, 2015). Therefore, in view of the above discussions on TQM, more elaboration need to be putting in place for clear as well as more comprehensive insight about the dimensions of TQM as can be observed below.

2.4.1 Dimensions of Total Quality Management (TQM)

As identified by some researchers, the most influential elements of TQM are those that are not tangible, behavioral and also familiarized as the soft variables consisting of customer focus, improvement in quality, top management support and employee's involvement as these elements or dimensions are invisible but have a direct significance on company's performance (Mahmood, Qadeer, & Ahmed, 2014, 2015; Sanders Jones & Linderman, 2014). Therefore, after extensive literature review by various researchers, some of the researchers have evaluated TQM strategies into six dimensions as; strategic planning, leadership, information and analysis, customer focus, process management and people management (Arshad & Su, 2015).

Furthermore, the dimensions that are most successful in TQM are customer focus, employee empowerment, and top management support as argued by (Mahmood, Qadeer, & Ahmed, 2014). As a result of this inconsistency in previous research, it is very difficult to pinpoint the precise dimensions of TQM (Ooi, 2014). As such, most of the researchers are in concord with the most significant TQM dimensions of customer focus, employee involvement, continuous improvement in quality, as well as top management support (Mahmood, Qadeer, & Ahmed, 2014, 2015; Rogo, Shariff & Hafeez, 2017b). Thus, these four most influential dimensions of TQM are discussed below:

2.4. 1.1 Customer Focus

This refers to the extent to which SMEs continuously satisfies customer needs and wants as well as the customer's expectations (Luburić, 2014; Ooi, Lin, Tan & Yee-

Loong Chong, 2011). In other words, it is meant to achieve long-term objectives of SMEs. It is also considered as the most basic TQM dimensions (Gómez, Martínez Costa & Martínez Lorente, 2015). Thus, the most frequently used TQM practice is sourcing a first-hand information regarding the customers' needs and wants (Haffar, Al-Karaghoulí & Ghoneim, 2013). Similarly, Hassan, Mukhtar, Qureshi, and Sharif (2012), opined that the future success of any business organization basically, depending upon the utility derived by its customers from its products or services efficiently and effectively.

As a result, customer focus served as the cardinal principle of TQM implementation which stresses on creating value to the customers and at the same time result in organizational development (Mehmood, Qadeer & Ahmed, 2014). In essence, this signified that a higher level of SMEs' performance is attained by proper implementation of TQM. Hence, one of the major indicators of performance enhancement is the customer focus. Therefore, TQM implementation increases customer satisfaction as asserted by some scholars (Sheng & Liu, 2010; Ryu, Lee & Gon Kim, 2012) and also improve SMEs' performance (Rezaie, Ramiyani, and Nazari-Shirkouhi & Badizadeh, 2014). In addition, customers' needs changes are identified and the performances of the SMEs are measured against the requirements needed by the customers as in quality management settings (Haffar, Al-Karaghoulí & Ghoneim, 2013; Hung, Lien, Yan, Wu & Kuo, 2011). Similarly as found by Gouanlong and Tsapi (2012), customer orientation is positively associated with the organizational performance. Consequently, as one of the major TQM dimensions, customer focus is served as a key predictor of the performance of SMEs.

2.4.1.2 Continuous improvement in quality

Continuous improvement and organizational performance can be observed base on understanding the concept of continuous improvement, which refers to as the ways of avoiding from defects and making improvement in the procedure of converting inputs into outputs (Pyzdek and Keller, 2014). In view of that, Al-Dhaafri and Al-Swidi (2016) defined it, as a way of removing defects and at the same time, improving the products and service quality continuously. Hence, it is another important dimension of TQM that guides and direct an organisation in its routing management affairs which involves the continuous efforts from the entire employees towards quality improvement, bearing in mind with the customers' needs and wants efficiently for the purpose of achieving the organisational objectives or goals (Arshad & Su, 2015).

Furthermore, in the process of setting quality management, the processes of work need to be constantly reviewed so as to enable a reduction in the waste of resources and mistakes that will eventually, improve the effectiveness and efficiency of the organisation (Herzallah, Gutiérrez-Gutiérrez & Munoz Rosas 2014; Mir & Pinnington, 2014; Tzempelikos, 2015). However, commitment towards the continuous implementation of TQM does not have a significant positive effect on the performance of an organization but rather, continuous quality improvement endorsed by the SMEs so as to stimulate the entire members of that organization towards innovation and quality performance (Talib, Rahman & Qureshi, 2013). Thus, it also serves as the most quality effectiveness measure on management initiatives for the purpose of achieving a significant performance improvement of SMEs. Therefore,

based on the above discussions, it is posited that the reviewed literature supported the relationship amid continuous quality improvement and SME's performance.

2.4.1.3 Employees involvement

The issue of employees cannot be neglected due to the contribution they are given in the production process (Rogo, Shariff & Hafeez, 2018). As such, employees are regarded as internal customers and also are very critical assets of the organization. Thus, it is quite indispensable to provide a very good rapport as well as a conducive enabling working environment that is necessary for them work, so as to win their confidence and feelings which eventually can make them have pride in their jobs (Rogo, Shariff & Hafeez, 2017b).

As revealed by Jabeen (2014) and Wang, Chen and Chen, (2012), SMEs should continuously strive hard in order to address and also satisfy the needs of their employee together with job commitment, job satisfaction as well as their workmanship pride. Employee fulfillment is yet another important attribute that needs to be enhanced through appropriate reward and recognition in order to boost the morale of the workers, so as to maximize their potentialities, (Jabeen, 2014). Thus, employees that have the sense of fulfillment, they tend to be more engaged in their assigned duties and produce more than their counterparts. Therefore, these critical TQM dimensions to be used in this study have been studied by different researchers (Jabeen, 2014).

2.4.1.4 Top Management Support

The concept of top management support and performance of a business organization simply refers to the ability of organizational top management to commit themselves to influence and inducing the organizational employees towards quality improvement. Thus, the strong leadership commitment is very necessary in order to achieve meaningful suppliers' reliability and durable quality improvement programs (Ismagilova, Bagautdinova & Gafurov, 2015). Therefore, the management at the top level, their support can enable the SMEs (business firms) in hastening quality management programs for the purpose of achieving SME's performance effectiveness (Hoejmose, Brammer & Millington, 2013).

Similarly, the management at the top level, their commitment serves as a determinant factor towards the setting realistic goals of the organization which in turn leads to the enhancement of the SME's performance. Thus, leadership has a positive influence on SME's performance (Molina-Azorín, Tarí, Pereira-Moliner, López-Gamero & Pertusa-Ortega, 2015). Hence, quality related objectives or goals are achieved by the directives given by top management. As such, when it comes to the system of quality management, the top management support used to provide the most conducive atmosphere for enhancing the performance of SMEs. Consequently, Tzempelikos (2015) recommended that top management support is a pervasive method of improving the general quality of performance of an organization.

Hence, as identified and discussed above, the most influential elements of TQM are those that are not tangible, behavioral and also familiarized as the soft variables

consisting of customer focus, employee involvement, continuous improvement as well as top management support as these elements or dimensions are invisible but have a direct significance on company's performance (Luburić, 2014; Mahmood, Qadeer, & Ahmed, 2014; Ooi, Lin, Tan & Yee-Loong Chong, 2011; Sanders Jones & Linderman, 2014). Even though, various researchers have evaluated TQM strategies into six dimensions as; strategic planning, leadership, information and analysis, customer focus, process management and people management (Arshad & Su, 2015; Haffar, Al-Karaghoul & Ghoneim, 2013; Hassan, Mukhtar, Qureshi & Sharif, 2012). As such, the dimensions that are most successful in TQM are customer focus, employee empowerment, and top management support (Gómez, Martínez Costa & Martínez Lorente, 2015; Mahmood, Qadeer, & Ahmed, 2014; Rogo, Shariff & Hafeez, 2017b). In contrast, Tzempelikos (2015) was of the view that very limited research if any shows the key elements of TQM.

As a result of the above inconsistency in literature, it is very difficult to pinpoint the precise dimensions of TQM (Ooi, 2014). For that reason, the present study based on the viewpoint of Ooi (2014), that, 'it is difficult to precisely pinpoint TQM dimensions due to the inconsistency of the extant literature'. Thus, the researcher considered the above four (4) discussed dimensions of TQM as a unidimensional in which it has been measured in the present study by using the eight (8) adapted items postulated by Chenhall in the year 1997 in order to examine their relationship with the organizational performance. Therefore, this is virtually in-line measurement items used unidimensional, in the study conducted by Abubakar (2016) among the 741 manufacturing firms that are located in Kano and Kaduna states of Nigeria.

2.5 Market Orientation (MO)

Market orientation (MO) is a management perspective that includes the organizational decision-making viewpoint (Shapiro, 1988). While the issue of market intelligence served as another important viewpoint in conceptualizing the concept of MO; accordingly, the word MO denotes to the definite marketing concept implementation. In addition, MO offers a unifying attention for the organizational efforts and individuals' projects as well as departments within an organizational setting." (Kohli & Jaworski, 1990).

Furthermore, Narver and Slater, (1990), viewed MO as "the organizational management culture that has effectively as well as efficiently creates the indispensable behaviours for the business organisation in order create superior values for both real and potential customers as well as continuous greater products satisfaction so as to cater those needs and wants of the customers for the purpose of achieving organisational objectives. So, Tong, Wong & Lui (2012), opined that market orientation to be considered an organizational culture comprising three essential dimensions of MO namely: customer orientation, competitor orientation and that of inter-functional coordination. Therefore, an empirical study has found that amongst the entire three MO dimensions, the inter-functional coordination, particularly those amid research and development as well as the product's marketing has the most substantial effect on new product development success.

Although, number of studies have been carried out with the regard to the issue of MO, hence, MO can further be defined as the degree of intensity to which SMEs have

adopted the marketing concept (Kilenthong, Hultman & Hills, 2016; Lamore, Berkowitz & Farrington, 2013; Pérez-Luño & Cambra, 2013; Rogo, Shariff & Hafeez, 2017b; Sheth, Parvatiyar & Sinha, 2015). Likewise, as shown in the prior studies, the important role played by MO in inducing the performance of SMEs (Baker, Sinkula, Grinstein & Rosenzweig, 2014; Beneke, Blampied, Dewar & Soriano, 2016; Urde, Baumgarth & Merrilees, 2013; Song, Wang & Cavusgil, 2015).

Additionally, according to Bueno, John, Lyra, and Lenzi (2016), MO acted as a competitive advantage source, even though most of the studies carried out in relation to MO and performance are in developed nations, Europe and the United States in particular. However, very little studies have been undertaken in the less developed countries. Also, prior literature has revealed that there is no significant positive relationship amid MO and the performance of SMEs in the less developed countries (Dubihlela & Dhurup, 2013). As such, majority of the factors that became attributable to the performance of SMEs among developed and less developed countries are related with differences with the regards to the external environmental factors such as the, government regulations, competition, structure of the economy social and cultural differences among others, which have peculiarities from one country to another (Shehu, 2014).

Even though, a need to undertake MO investigation arises in the less developed countries as a result of inadequate comprehensive studies. Thus, Hussin, Thaheer, Badrillah, Harun and Nasir (2014), argued that even though, MO as a strategic management construct, has brought a significant positive performance relationship in

the Western country, therefore, its implementation on the other countries becomes imperative, more particularly looking at these critical latent variables of market orientation, entrepreneurial orientation, and the Nigerian SMEs' performance relationships.

Additionally, the issue of marketing concept served as one of the fundamental concepts that have arisen in the marketing field over some years (Singh, Agarwal & Modi, 2015). So, current literature has identified its association with greater business organizational performance (Line & Runyan, 2014). However, in spite of its acknowledgment a significant feature of business management practices which guarantees the exceptional performance of an organisation through focusing and embarking on market-oriented undertakings, evaluating the level of its application by organisations that are in business transactions has been a difficult responsibility to several marketing scholars as well as marketing practitioners (Pascucci, Bartoloni & Gregori, 2016; Rogo, Shariff & Hafeez, 2017a). Therefore, in an attempt to tackle the marketing concept predicament, that market orientation evolved.

Meanwhile, from the issue of the marketing concept, and its definitions that are given by several scholars in marketing, yet those scholars have described the latent variable called market orientation as an application of marketing concept (Hilal & Mubarak, 2014; Ramayah, Samat, & Lo, 2011; Singh, Agarwal & Modi, 2015). Hence, market orientation is referred to as a marketing philosophy in business or a business organizational culture geared towards superior values delivery for their customers, which, will eventually bring about the higher performance of the organization

(Lettice, Tschida & Forstenlechner, 2014). Therefore, it is obvious that, for any business organization to become market-oriented, so its marketing programs must be in support of relevant business organizational cultures.

Accordingly, just like the main concept (marketing concept), market orientation is viewed from different philosophical approaches. Thus, MO is traditionally termed as a business philosophy correlated to customer orientation (Keelson, 2014). Equally, it is also observed from the cultural as well as behavioral viewpoints as a set of business organizational behaviors which are replicated in marketing undertakings that SMEs embark on in their attempt to provide higher values for their customers (Keelson, 2014, Rogo, Shariff & Hafeez, 2017b). So, MO has been perceived as a business culture of an organization that represents the values as well as organizational beliefs that the top management managers share in respect to satisfaction of their customer as a means of achieving higher organizational performance (Rogo, Shariff & Hafeez, 2017b). Finally, the concept of MO as a culture of an organisation, it enable SMEs to be thoughtful to the market in which it operates, through relevant information gathering about customers' specified needs as well as the strategies and capabilities of the competitors in order to have a steady offering for higher values for customers (Keelson, 2014). Therefore, a market-oriented SMEs have all necessary competencies of being thoughtful to what's really happening in the marketplace when compared to those SMEs that are not market-oriented at all.

Even though, the issue of conceptualizing as well as operationalizing MO received wider acceptance from two famous perspectives (Keelson, 2014; Lichtenthaler, 2016;

Truong, 2014). Besides, Truong (2014), came with the opinion that, one out of the two famous groups that conceptualized as well as operationalized MO was that of Narver and Slater in 1990. Accordingly, Narver and Slater refer to MO as a culture of a business organization that functions as a foundation for providing customers with goods and services of values so as to derive satisfaction (Fang, Chang, Ou & Chou, 2014; Rogo, Shariff & Hafeez, 2017b). Consequently, MO has operationalized the MO as a concept in marketing to serve as a unidimensional construct with three different components as customer orientation, competitor orientation, and inter-functional coordination (Narver & Slater, 1990; Shia, Chen, Ramdansyah & Wang, 2015; Suliyanto & Rahab, 2012).

2.5.1 Customer Orientation

As one of the dimensions of MO, customer orientation has necessitated an organizational culture, where every employee puts the customers' satisfaction first in their day-to-day activities (Lengler, Sousa & Marques, 2013; Narver & Slater, 1990). Similarly, Abdulai Mahmoud and Yusif, (2012), were of the view that, customer orientation is an organizational activity that reflects the process of acquiring and disseminating information about the customer. Additionally, Polat and Mutlu (2012) refer customer orientation as the organizational understanding of the customer needs, which aimed at satisfying customer need that serve as a base for developing market orientation strategies. Thus, the customer is regarded as the ultimate consumer.

In other words, Customer orientation refers to the focus of an organization which means that SMEs should first focus their attention on customers' needs and at the

same time to satisfy those needs and also is flexible. Hence, customers are the ultimate consumers. In essence, it means that the attention of SMEs should initially be tilted towards customers and SMEs will make sure that the customers' needs are satisfied in order to enable the organization to achieve its objectives.

2.5.2 Competitor Orientation

Another important dimension in market orientation is that of competitor orientation. This involves active monitoring of all existing and potential competitors in the marketplace and collects competitive intelligence to differentiate the competitors' approaches (Narver & Slater, 1990; Raju, Lonial & Crum, 2011). Similarly, competitor orientation involves active monitoring of all existing and potential competitors in the marketplace and collect competitive intelligence to differentiate the competitors' approaches (Narver & Slater 1990; Wang, Chen & Chen, 2012). In other words, Narver, and Slater in 1990 regarded competitor orientation as a means of continuing to understand the capabilities and potential as well as current strategies of their major competitors that the customer's needs provide organization goals and the use of knowledge (knowledge of competitors recognize) in order to create superior customer value. Thus, West, Ford, and Ibrahim (2015) identified that competitor orientation is concerned with the strengths and weaknesses, abilities and strategies of competitors so that they can react against activities.

Hence, every SMEs be it a market leader or not and at the same time seeking to excel, should have a well-articulated policy in marketing their products or services. Thus, SMEs have most of the time been accommodating their marketing policy against the

competitive environment changes. Similarly, the SMEs that are competitive oriented in nature are regarded as the companies that regulate their business operations and at the same time used to influence their actions and reactions. However, in a situation like that, the competitor-orientated firm will spend much time on very vital issues such as, competitors' movements and also the market and at the same time finding suitable strategies that can be used so as to have an edge over their competitors (Schmidt & Baumgarth, 2014).

In the same vein, the SMEs at times use to rate their competitors in terms of their strengths and weaknesses, so as to make thorough analyses for them to strategized (Udoyi, 2014). So, for the purpose of competitor orientation, there is a need to constantly evaluate the strengths and weaknesses of their competitors before making strategic planning. As such, this evaluation in terms of SME's performance could include some or all of these phenomena such as manufacturing productivity, pricing, delivery time, customer satisfaction, innovation, and employee retention and market share. Therefore, in a competitive economic system, each financial institution must try to maximize the benefits for themselves at the expense of their competitors.

2.5.3 Inter-Functional Orientation

For purpose of creating value to customers, coordinating the SME's resources is of crucial importance. Thus, this process according to Cheng and Krumwiede, (2012) is termed as SME's inter-functional coordination. Therefore, Inter-functional coordination as viewed by Chad (2014), refers to the systematic organizational process that comprises the synchronization of all the organizational functional

departments or unit effort in order to offer superior service or value to customers. On the other hand, Cheng and Krumwiede (2012) were of the opinion that, inter-functional coordination serves as a means of achieving the objective of an organization through the coordinating of various functional departments or units in an organization by doing away with the individual departmental or unitary functional interests to that of the holistic organizational. Furthermore, business organizations, as a matter of fact, must make sure that their resources are properly coordinated and fully utilized in creating a superior value for its customers, this is termed as inter-functional coordination (Malhotra, Lee & Uslay, 2012).

Furthermore, as the name implies, inter-functional coordination, cover all the entire efforts of the different units or departments in an organization for the purpose of offering superior values to the customers so as to achieve organizational objective via improving the SMEs' performance (Rogo, Shariff & Hafeez, 2018). Consequently, the present study based on the consent of the literature discussed in the practical significance of this study that appears to support the theoretical as well as operationalized definition viewpoints on its unidimensionality of the MO construct.

Even though, it has stated and elaborated above as one-dimension variable comprising of three behavioral elements as well as two decision criteria-customer orientation, competitor orientation, inter-functional coordination, a profit objective, and a long-term focus and that each of the five can be measured reliably with a multi-item scale (Narver & Slater, 1990). Hence, Narver and Slater (1990) hypothesize MO as one-dimension construct because the three behavioral components and two decision

criteria are conceptually closely related. Therefore, this study is also in line with the viewpoints of Aminu and Shariff (2016); Narver and Slater (1990); Rogo, Shariff and Hafeez (2018) as well as Shehu (2014), in which MO served as one of the critical constructs among strategic orientation variables that have been theorized and measured with the eleven (11) adapted items as well as operationalized as a unidimensional variable.

2.6 Entrepreneurial Orientation (EO)

In the context of this study, and the conceptualisation of this very important strategic orientation construct known as Entrepreneurial orientation (EO) according to Miller/ Covin and Slevin in 1989 this very term EO can be viewed as a combination or mixture of three dimensions: (i) innovativeness is inclined towards supporting and enhancing the generation of new ideas, expertise and creativity to predictably to result in new services, development of new products or processes; (ii) risk-taking is concerned with the calculating the degree to which an individual or group of individuals vary in their readiness to continue taking or bearing risk; and (iii) proactiveness is more or less concerned with the early-mover and other engagements intended at seeking to capture and safeguard market share as well as with an onward perspective reflective looking actions taken anticipating future demands (Wales, 2016).

So, those above mentioned three dimensions postulated by Miller/ Covin and Slevin in 1989 were later on developed by other management scholars in persons of Lumpkin and Dess, in 1996 into five (5) dimensions of EO. Thus, according to Wales (2016),

EO was viewed as an independent variable of five dimensions as result of adding two other dimensions apart from those three dimensions postulated by Miller/ Covin and Slevin, in 1989, the two additional dimensions are Competitive aggressiveness and Autonomy. Therefore, all the five dimensions of EO were discussed in detail after some of the literature written about the EO in various part of the World subsequently.

The issue of EO literature to business performance seemed to produce inconsistent findings. Thus, Ndubisi and Ifikhar (2012), had conducted a study that examined the entrepreneurship, performance quality together with the innovativeness relationships among the SMEs of Pakistan. So, one hundred and twenty-four SMEs were used as the sample of their study, using the questionnaire as well as hierarchical multiple regression models for analyzing their data. Accordingly, the findings show that there is a positive significant relationship between entrepreneurship and quality performance of Pakistan' SMEs. Similarly, the study conducted by Hussain, Ismail and Akhtar (2015a), on linking EO with the SMEs' performance reveals that EO has a significant positive influence on the performance of a business firm. Therefore, their proposition had supported the notion that EO played a significant role in the organizational success as well as its superior organizational business performance (Huang, Wang, Chen & Yien, 2011; Brettel & Rottenberger, 2013).

Equally, Fatoki (2012) conducted the study that investigates the effect of EO on access to debt finance and SMEs' performance. Thus, the study took place at King William's Town and East London in the Eastern Cape zone of South Africa. The data of the study was collected by means of self-administered questionnaires. In which the

data were analyzed using descriptive statistics, correlation as well as regression analysis. The results showed that a significant positive relationship exists amid EO, access to debt finance and the SMEs' performance. Accordingly, the results of the study also depicted that access to debt finance mediates the relationship amid EO and the South African SMEs' performance partially.

Likewise, a study that examined the mediating role of innovation success on EO, societal capital, human capital, and performance of SMEs relationship using the questionnaire as an instrument for data collections among Johor Bahru, of the Malaysian economy, and Palembang, of the economy of Indonesia. Thus, structural equation modeling as the tool was used for analyzing the data. Therefore, the result of the study found that there was a significant positive relationship between EO and SMEs' performance (Prato Wee, Syahchari, Tyaznugraha, & Hadiatifitri, 2013). However, Anderson (2010), conducted a study in Swedish among the 172 SMEs in the manufacturing sector, and the findings of the study indicated that there was a negative relationship between EO and SMEs' performance. Similarly, the study of Jabeen (2014), on the 500 SMEs operating in the Punjab Province, Pakistan by using questionnaire survey, and a random sampling technique was used. Thus, the findings of the study showed that EO and moderating effect of external environment (EE) to SMEs performance is not significant.

Relatedly, the study of Aminu and Mohd Shariff (2015b) on the 522 SMEs operating in North Western Nigeria by means of cross-sectional survey design questionnaire survey, and a cluster sampling and Partial Least Squares Structural Equation

Modelling (PLS-SEM), was used as the tool for analyzing the data. Hence, the finding of the study established that there was a negative relationship between EO and access to finance among the SMEs of the Nigerian economy. In essence, EO negatively influences the Nigerian SMEs' performance. Therefore, based on the above literature reviewed, it indicated that EO and SMEs' performance literature is inconclusive.

Furthermore, the concept of EO has been under study as early as 1976 right from the Mintzberg's work. As such, EO shows the rules as well as practices that provide a basis for entrepreneurial movements and judgments. So, with this particular foundation for entrepreneurial actions, EO can be presumed to be a strategic procedure in which the decision makers of SME operate to implement their business organizational rationale in efforts to sustain its vision, mission, and creation of competitive advantage. Nevertheless, George and Marino (2011) in the survey they conducted, there was a conflicting conclusion to the findings of Mintzberg, Raisinghani, and Theoret (1976), concluding that EO solitary impact on SMEs requires improvement in the financial performance rather than the so-called strategic effort towards achieving goals of an organization.

Moreover, the study of Lumpkin and Dess (1996) suggested that the EO and its dimensions internments notions of the techniques of decision-making that owners or managers use entrepreneurially. Henceforth, reflecting an operation of SMEs in value creation regardless of entrepreneurial activities it carries out. Meanwhile, traditionally EO is contended to have three main dimensions namely: risk-taking, new product

innovation, as well as the pro-activeness attitude of an entrepreneur (Covin & Lumpkin, 2011; Covin & Miller, 2014; Wales, Patel, Parida & Kreiser, 2013).

In other words, a related study by Freiling and Schelhowe (2014), disputes that numerous studies examining EO are more to explorative ignoring the exploitative point of view. As a result, these urged them to investigate the exploitative viewpoint of the EO. However, by mixing the explorative together with the exploitative viewpoints of EO, they concluded that it will bring about SMEs' effective performance. Hence, both concepts, that exploitative and explorative of EO are highly significant. Similarly, Deh, Asuamah, and Agyemang (2013), in their study stated that EO as the readiness to take part in a more risky, innovative business activities in the marketplace, precisely discover new business opportunities before those business organizations competing with. So, this signified that owner/ managers need to be proactive in their business operations.

Additionally, the EO dimensions such as risk-taking, pro-activeness, and innovativeness have been examined in the studies of (Alarape, 2014; Dai, Maksimov, Gilbert & Fernhaber, 2014; Guo, Tang & Su, 2014). Accordingly, the issue of meeting customer needs, new product exploration, idea support are the central issues in product innovation (Wang & Chung, 2013), services, or scientific processes (Lumpkin & Dess, 1996; Wales *et al.*, 2013), and modifying existing technologies or practices and ventures (Volberda, Van Den Bosch & Heij, 2013). In essence, EO is also featured by risk-taking which guarantees high returns. Thus, the SMEs grab chances in the open market and obtain first-mover benefit (Wales *et al.*, 2013).

Accordingly, Shehu (2014), in his study, had conceptualized EO as the organizational plan making process and styles of SMEs that engage in entrepreneurial activities. Therefore, this involves all activities taken for SMEs to be more proactive, innovative as well as issues relating to risk taking. Moreover, Zhang, Zhang, Cai, Li, Wei Huang, and Xu (2014), proposed and also at the same time validated the five-dimensional scale for measuring entrepreneurial orientation as found in their empirical pilot test which was conducted in China among the 20 Chinese SMEs in the design industry. A total of 408 complete and valid questionnaires were received out of the 1200 questionnaires distributed. Consequently, EO as one of the critical constructs among strategic orientation variables has been theorized with the 9 items as well as operationalized as a unidimensional variable (Hakala & Kohtamaki, 2011; Miller, 1989).

Therefore, the present study based on the consent of the literature discussed in the practical significance of this very study that appears to support the theoretical as well as operationalized definition viewpoints on its unidimensionality of the EO construct to be stated and elaborated below as risk-taking, innovativeness, pro-activeness (Covin & Lumpkin, 2011; Covin & Wales, 2012). Accordingly, this is also in line with the viewpoint of Hakala and Kohtamaki (2011) as well as that of Miller (1989), in which EO served as one of the critical constructs among strategic orientation variables that have been theorized and measured with the 9 items as well as operationalized as a unidimensional variable.

In another development, research on entrepreneurial behavior developed by Wales, Parida, and Patel (2013), had proposed three factors that constitute the EO construct i.e. innovation, risk-taking, and pro-activeness. Thus, the three-dimensional EO construct proposed by Wales, Parida, and Patel (2013) was extended later by Saeed, Yousafzai, and Engelen (2014), by adding two dimensions i.e. autonomy and competitive aggressiveness. Additionally, Dai *et al.*, (2014), asserted that most researchers come to an understanding that entrepreneurial orientation is a combination of three dimensions namely: innovativeness, pro-activeness and risk-taking. Indeed, many studies such as Abiodun and Rosli (2014), Wales, Parida, and Patel (2013) follow this three-dimensional model created by Soininen, Martikainen, Puumalainen, and Kyläheiko (2012).

Furthermore, research by Covin and Lumpkin (2011), Dai *et al.*, (2014) and that of Lechner and Gudmundsson (2014), have shown that the dimensions can vary independently from each other. However, very few researchers were of the opinion that, the three dimensions explained above may vary within their model and may at the same time create several dimensions in EO model. Even though, the discussion held is not pronouncing whether the EO dimensions can vary from each other but rather it can be based on the fact that a business enterprise should efficiently utilize the entire three EO dimensions (Soininen *et al.*, 2012). Therefore, Lumpkin and Dess (1996); Wales *et al.*, (2013), opined that innovativeness as one of the critical EO dimensions is more or less related to pursuing novelty and giving support to it as well as originality, process creativity and also new idea development via experimentation.

2.6.1 Innovativeness

SMEs can only be innovative if a new idea, creativity, novelty as well as experimentations are supported and also results in the creation of new products in a new manner (Lumpkin & Dess, 1996; Wales *et al.*, (2013). In another development according to Van Doorn, Jansen, Van den Bosch, and Volberda (2013), the concept of innovativeness involves SMEs' ability to create or come up with or even improve the idea that is new, activities process that is creative, or nature and improvement in quality through new technology.

Additionally, the innovativeness as a management concept refers to a societal progress that can be achieved when there is a new idea that is innovative as well as business activities processes. Hence, this new idea and steps (processes) facilitate new products or services as well as improvement in the quality of the product which will end up the increase in the market demand. Therefore, according to Herath and Mahmood (2013), innovativeness refers to the process of improving current skills or the process of acquiring skills and shifting the process from current skills to initiate new ideas and also competencies.

2.6.2 Pro-activeness

Pro-activeness is regarded as the processes that are aimed at seeking new opportunities which may or may not be related to the present line of operations, introduction of new products and brands ahead of the competition. It also strategically eliminated operations which are in the mature or declining stages of the product lifecycle (Ali & Ali, 2014). Actually, pro-activeness serves as usefulness or benefits

attached to the creative idea with regards to the process of entrepreneurship. Hence, an enterprise via changes of the anticipated demand in the future can have a competitive advantage (Jones & Rowley, 2011), or by becoming an active participant when it comes to shaping its business environment.

2.6.3 Risk Taking

Accordingly, risk-taking as yet another critical EO dimension used to describe the concept of uncertainty that occurred in the cause of entrepreneurial business activities. Similarly, the behavior in terms of entrepreneurial business activities constitutes making an investment in the SMEs' resources in a venture that an entrepreneur is not really certain about or the business is even exposed to failure. Therefore, a fundamental emphasis is related to the calculated risk in favor of the uncalculated risks (Gitau, Mukulu & Kihoro, 2014), as such, the risk-taking as an EO important dimension, its value is oriented towards the absorption of uncertainty as opposed to overburden the business activities of its fear.

2.7 Access to Finance (AF)

The concept of access to finance has newly come into noticed to some researchers which showed that 75.7% out of the study they shepherded in their studies that, majority of the respondents individually relied upon their past savings as well as personal income in financing their business operations (Evbuomwan, Ikpi, Okoruwa & Akinyosoye, 2012; Onakoya, Fasanya & Abdulrahman, 2013). In the same vein, Harash, Al-Timimi, and Alsaadi (2014), opine that access to finance with the regards to the performance of SMEs serves as a specific problem that needs to be addressed

seriously, it is to the extent that small business organizations are inclined to possibly have considerable high level of job growth rate but at the same time, their organizational business activities are more likely to be stunted or to even be out of business because of either institutional reasons or financial resources constraints.

So, Kelly, Singer, and Herrington (2012), also opined that access to financial resources is one of the most critical business organizational resources that speed up the running of business activities of SMEs in many economies. Similarly, Grande, Madsen, and Borch (2011) were of the view that, access to finance is expected to be a vital business organizational resource for SMEs as well as a basis of viable advantage with regards to performance for those business firms which have greater access to it than their competitors.

Additionally, business financing could be of greater importance once, it can increase the performance of SMEs, and in due course lead to a private, social and economic well-being of a nation (Roy, 2012). In essence, access to the SMEs valuable resources such as financial resources is some of the important and critical factors that enhance entrepreneurial activities of SMEs in any nation (Aminu, & Shariff, 2015b; Kuntchev, Ramalho, Rodríguez-Meza & Yang, 2012). Thus, SMEs' performance can either be positively or negatively affected as a result of the financial resources availability. As such, higher performance of SMEs used to be influenced by the high leverage level (Klonowski, 2012). Thus, other scholars that comprise: Acharya, Almeida, and Campello (2013) were of the view that once the level of leverage is high, then it can lead to underperformance of the SMEs' business activities. In contrast, access to

financial resource measures can be understood from two perspectives, i.e.; either from the financial providers (lenders) or the users of financial resources (borrowers) point of view. Similarly, Honig, Karlsson, and Hägg (2013) opined that access to social as well as financial resources will probably empower those SMEs that are newly established to compete in a considerable manner than those SMEs of their competitors that are operating their businesses already.

Therefore, these three major elements are identified for measuring access to financial resources (Roy, 2012). The first out of the three above mentioned elements are the institutional dimension in which, this dimension measures the degree of modern financial services, with the comprehending of the actual idea of objective efficiency, standard conditions and terms of provisional financial services, reliability, and close observation. While the second element is that of functional dimension which is more or less related to non-collective financial service availability for a particular sector or financial user. It focuses on the willingness and ability of the financial provider to provide financial services that are specific in nature. Likewise, the last but not the least element is that of the product dimension which aimed at measuring the rate and manner at which basic financial services are available, it also serves as a deeper measure in terms of financial service.

Additionally, Cheng, Ioannou, and Serafeim (2014), stated that SME's ability to get essential business financial capital depends on a number of its strategies. Thus, those SMEs with the effective strategic orientations creativity can surely make more rate of returns in terms of turnover and profits, in which they will invariably attract more

financial capital externally. However, as earlier stated in the study conducted by Jabeen in 2014, the results of the study found that EO became negative to Punjab's SMEs performance of Pakistan due to low access to financial capital. Therefore, these negative result findings indicate that lack of financial resources accessibility can lead to business performance distraction, due to the lack of realizing the full potentialities of the financial resources by the SMEs as the economic growth and development driver of many economies.

2.8 Total Quality Management and Performance

On the issue of TQM and performance of SMEs relationship, numerous studies have been undertaken some of these studies are: The study of Musa and Alawad (2011), in which they examined the effect of TQM practical application on plant productivity. At that moment, a sample of three poultry processing business organizations was chosen out of eight by using purposive sampling. Thus, TQM found to be positively impacted on the productivity of the poultry processing plant. Therefore, their survey was in line with the result findings of Naser Alolayyan, Anuar Mohd Ali, and Idris (2011), in which it was also proven that a positive relationship exists between TQM and the organizational business performance.

Respectively, Saleem, Siidique, Akmal, Khan, and Sultan (2011), measure the effect of certification of the ISO 9000 on the business performance of an organization. So, questionnaire survey as an instrument for data collections was employed in which a sample of three hundred (300) SMEs from the Lahore, Multan, as well as Sialkot cities of Pakistan. Thus, a convenient type of non-probability sampling was used

together with the multiple regression as a tool for data analysis. Therefore, the study's findings showed that a significant positive relationship exists amid ISO 9000 and business organizational performance.

In another development, Valmohammadi (2011) conducted a study on the sixty-five quality managers and had a response rate of 81.5%. Therefore his study found that TQM implementations of business organizational performance were supportive, nonetheless, the correlation established in the study was weak. Similarly, Saeed and Hasnu (2011) had conducted the quantitative survey by means of a questionnaire on the ninety SMEs as the study's sample thus, the data were analyzed using descriptive statistics as well as a correlation for analyzing the data. Therefore, the findings of the study had shown that the implementation of TQM on SMEs are found to be at a medium level.

However, Raja, Bodla, and Malik (2011) had conducted a study on the effects of total quality management implementations on the SMEs' manufacturing sector business performance in Pakistan. Thus, a sample of sixty-five (65) managers working in the department of quality assurance as such, for the purpose of data analysis, descriptive statistics were employed. Therefore, the study's findings indicated that TQM used to be implemented only in relation to quality control measures, quality assurance and continuous improvement in quality as well as top management commitment that served as the major construct that is affecting implementation of TQM which invariably affects SME's performance.

In the same vein, Khan (2011) empirically investigated the impact of TQM on organizational performance with the moderating role of managerial competence. A sample of two hundred and fifty managers working in a service organization was used with correlation, factor analysis and hierarchical regression for data analysis. Total quality management is found to predict organizational performance, managerial competence is found not to moderate TQM practice and organizational performance. Accordingly, the study of Talib, Rahman, and Quresh (2012) analyzed and ranked the key TQM practices in the Indian hospitality industry based on an email survey of thirty-four hospital companies. The finding established an association between the studies constructs.

In another development, Wang, Chen, and Chen (2012) inspected five hundred and eighty-eight hotels using structural equation modeling (SEM) and discriminant analysis for data analysis. The finding indicated that market orientation has a mediating effect on total quality management and hotel performance. External environment moderates the relationship amid TQM, MO, and the performance of the hotels. Similarly, Sajjad and Amjad (2012) argued on benchmarking in the total quality management of the telecom service sector in Pakistan. A questionnaire survey employed, and the finding indicated that TQM practice implementation has a positive effect on quality outcomes (productivity, profitability, competitive position, cost reduction, reduces rework level, reduce scrap level, and stay in business). Benchmarking also plays a significant role in the development of organizations.

Furthermore, Seedee (2012), in his study with regards to business strategies has examined the moderating role that affects the relationship between the best business practices and performance of SMEs. Hence, a data collected from one hundred and sixty-nine business manufacturing SMEs in Thailand by using parametric statistics of descriptive statistics and hierarchical regression. Therefore, best business practices are found to have a strong relationship with SMEs' performance.

Similarly, Sulistyowati, Salim, Surachman, and Solimun (2013), surveyed one hundred and fifty-four units of ISO 9000 as the population of certified manufacturers companies in East Java. The data were analyzed by generalized structural components (GSCA). Their report found that ability to adapt to the business external environment indirectly affects performance, adaptability to the external business environment affects company performance improvement through competitive strategy, mediation, implementation of TQM affects company performance through company strategy mediation, and implementation of TQM found to have indirect effects toward company performance improvement.

Relatedly, Yunis, Jung, and Chen (2013) have done a similar study with regards to TQM and SMEs' performance relationship. For the purpose of the study, data from six hundred and fifty questionnaires obtained from USA, Mexico, Korea and China using middle-level managers as respondents with convenient sampling. The results show that TQM influence strategy on both soft and hard TQM hence predict performance. Likewise, a study conducted by Jaafreh and Al-abedallat (2013) on the impact of TQM practice and organizational performance of the banking industry in

Jordan, using the questionnaire as an instrument and that of multiple regressions for data analysis. Thus, the study's findings show that TQM practice affects organizational performance.

However, Talib, Rahman, and Qureshi (2013) conducted a study using a self-administered questionnaires instrument that was distributed to 600 Indian service companies. The findings of their study indicated that TQM practices were found to be insignificant due to partial correlation with respect to the quality performance of the SMEs' service companies in Indian. Furthermore, it was also found that in their study that, the quality culture was posited as the factor that dominates TQM practice with regards to quality performance. Thus, the other practices like that of quality systems, training and education, teamwork, and benchmarking had shown that there is a positive relationship with regards to quality performance.

In the same vein, in the study conducted by Jabeen (2014), that examined the moderating effect of external environment, affecting the relationship amid TQM, EO, MO and the SMEs' performance in Punjab Province of Pakistan. The data collected from the three hundred and seventy Punjab manufacturing, service, and retailers/traders registered business sectors of SMEs using descriptive statistics and statistical package for social sciences (SPSS) version 20. The study's findings revealed that TQM and MO were positively significant to SMEs' performance, while that of EO was found to be insignificant based on the researcher's analysis. However, with regards to the issue of the insignificant result between EO and SMEs' performance, the researcher's opined that one of the militating factors to that effect was due to low

access to financial capital. Thus, the result depicted the insignificant relationship between the EO and SMEs performance in Punjab Province, Pakistan. Therefore, inconsistency emerged in the findings of the study; thereby, need for further studies in the same industry as suggested by the researcher.

Similarly, Narimani, Tabaeian, Khanjani, and Soltani (2014) established a significant mediating role of TQM between OCB and ERP. Additionally, the study of Haque, Sarwar, Azam and Yasmin (2014) provides a deeper understanding of TQM application in the Islamic bank sector by identifying matching as well as the peculiar factors that affect TQM application in Bangladesh and Malaysian banks. A convenient sampling approach adopted, using a self-administered questionnaire survey. Thus, the result shows that knowledge is the basic TQM principle among employee in Malaysian banks, whereas, ignorance is found in Bangladeshi Islamic banks.

Likewise, the study of Benavides-Velasco, Quintana-Garcia, and Marchante-Lara (2014) that surveyed one hundred and forty-one Spanish hotels from an Andalusian region, had reported that a significant positive relationship exists between TQM and SMEs' performance. However, Sadikoglu and Olcay (2014) in their study argued on TQM practice and performance. Hence, a cross-sectional survey research method and organizational unit of analysis were adopted. Similarly, the study sample was selected from the Turkish quality association of the SMEs located in the Kocaeli-Gebze industrial zone, two hundred and forty-two usable questionnaires obtained representing forty-eight percent. Thus, the finding shows that employee involvement, awareness and commitment, inappropriate SMEs' structure, and lack of resources

were the major obstacle of the SMEs in Turkey. In another development, Waweru and Orodho (2014) investigated the extent to which management practice used by school principals. A descriptive correlational research design employed with both stratified and simple probability sampling techniques capabilities and SMEs organizational performance.

Furthermore, Jabeen, *et al.*, (2014) in their study has examined that there is a relationship between TQM and SMEs' performance in Nigeria. Thus, a cross-sectional research design employed with a partial least square method for the data analysis employed. Hence, the finding demonstrated that positive significant relationship exists between the study's variable. While in the work of Jabeen (2014) on SMEs performance in Pakistan, the result showed that both TQM and MO are positively significant to performance, but EO is found to be not significant. Therefore, the need for further study for the above inconsistent result on SMEs' performance using the same constructs and in the same industry as suggested by the scholar.

Al-Ettayen and Al-Zubi (2015) also examined the relationship between TQM and organizational performance of the Jordanian banking sector. Thus, a questionnaire was distributed to eleven commercial banks using a statistical package of social science (SPSS). Therefore, TQM to performance relationship was found to be supported. Similarly, Topalović (2015) also investigated the attitude of corporate clients on a variety of elements implemented TQM process provided by banks. Based on the arguments discussed above, this study proposed the following hypothesis:

H1: There is a significant relationship between total quality management and performance of small and medium enterprises in Nigeria.

2.9 Market Orientation and Performance

Another important construct studied in relation to the performance of SMEs is market orientation. As such, many studies conducted in relation to the market orientation as a latent variable in its relationship to SMEs' performance outcomes of some studies in the related area comprised that of: Beverly, Michael and Richard (2012) in which their study was based on relationship amid customer orientation and SMEs' performance among one hundred and eighty US SMEs, with the innovativeness, risk-taking, and opportunities as the moderators. Thus, a questionnaire was used as the means of data collection so also regression was used to analyze the data in the study. Therefore, Findings of the study have shown that a strong positive relationship exists amid the variables.

Likewise, Deniz Eris, Ozmen, and Neczan (2012) conducted an empirical study on the effect of MO, LO (learning orientation), innovativeness, and SMEs' performance of Turkish Logistics Sector. The study used the questionnaire as the means of data collection and structural equation modeling as a tool for data analysis was used also. Similarly, Arshad and Othman (2012) in their study examined the effect of corporate social responsibility (CSR) discloser, MO, and SMEs' performance relationship and mediating effects of CSR on the relationship amid MO to the Malaysian SMEs' performance, by means of content analysis as another technique for data collection among the 242 SMEs in Malaysia. Therefore, the study's findings indicated that a

positive relationship exists amid MO and the Malaysian SMEs' performance. However, CSR as the mediator in the study does not mediate the relationship amid MO and the Malaysian SMEs' performance.

Also, Oyedijo, Idris, and Aliu (2012) conducted a survey on the impact of marketing practices in relation to the performance of the Nigerian SMEs. Thus, samples of five hundred and forty-five have been used in the study among the business/ senior staff of Lagos in Nigeria. Accordingly, a survey questionnaire was used for the collection data, so also analysis of variance (ANOVA) was used as a tool for data analysis in the study. Therefore, the study's findings stated that a significant positive relationship exists amid marketing practices and the overall SMEs' performance of Lagos in Nigeria. Additionally, the study conducted by Hussain, Ismail and Akhtar (2015b), among the 367 manufacturing SMEs in Sialkot region of Punjab, Pakistan using a structured questionnaire as the instrument of data collection, and also cross-sectional survey research design was employed. Thus, the study's findings reveal that market orientation as an important strategic orientation management exogenous variable has a significant relationship as well as the effect on the SMEs' performance of Sialkot region of Punjab, Pakistan.

Similarly, the study's finding revealed that a positive significant relationship exists between MO and the performance of the SMEs. Thus, the above findings are in concord with each another, showing a positively significant relationship exist between MO and the performance of the SMEs. However, other related studies revealed that, a negative relationship exists between MO and performance of the SMEs, these include;

Arshad, Wang, and Su (2016); Shehu and Mahmood (2014a); Baker *et al.*, (2014); Beneke *et al.*, (2016); Rogo, Shariff, and Hafeez (2017b); Song, Wang and Cavusgil (2015); Urde, Baumgarth and Merrilees (2013). Thus, MO – performance relationship is inconclusive.

In the nutshell, studying past literature on MO, scholar such as Reijonena, and Komppulab (2010) concluded that positive relationship exists amid market orientation and the performance of SMEs. Furthermore, in “hostile” environment such as that of Bangladesh, a positive relationship of MO to firm success was proven by (Hoq, & Chauhan, 2011). While the study of Michna, Meczynska, Kmiecik, and Sekowska (2011) articulate the positive relationship between MO and firms’ innovativeness. Based on the arguments discussed above, this study postulated the following hypothesis:

H2: There is a significant relationship between market orientation and performance of small and medium enterprises in Nigeria.

2.10 Entrepreneurial Orientation and Performance

According to Lumpkin and Dess (1996), many studies that had been conducted used EO on the relationship related to the performance of the SMEs. Hence, he suggested that EO may be more strongly related to performance when it is pooled with both the appropriate plan and the proper environmental conditions, and this study paves way for the emergence of other related empirical studies on entrepreneurial orientation and SMEs’ performance.

In another related study by Wales, Gupta and Mousa (2011) on empirical research of EO an assessment and suggestions for future research that aimed at providing a full qualitative review and assessment of the empirical entrepreneurial orientation literature, using one hundred and fifty-eight journal articles. The findings established a significant relationship between EO and performance. Madhoushi, Sadati, Delavari, Mehdivand & Mihandost (2011) inspected and innovation performance with the mediating role of knowledge management, in which, the study tried to integrate the role of knowledge management. To that effect, one hundred and sixty-four samples of SMEs were included in the study. Therefore, the findings revealed that EO played a significant role in predicting the SMEs' performance. Thus, MO mediate the relationship between EO and performance of the SMEs partially

Likewise, Sharma and Dave (2011) examined EO and SMEs' performance level, three hundred and nineteen sample of SMEs family owned business of Chhattisgarh. A convenient sampling was adopted for the purpose of data collection and the data were analyzed using a regression model based on the structured questionnaire retrieved from the entrepreneurs of the small family businesses operated in the area. Therefore, the findings revealed that a strongly positive relationship exists between EO and performance of the SMEs. Likewise, Osman, Rashid, Ahmad and Hussian (2011b) had considered and at the same time made a review on the number of previous studies in relation to EO and SMEs' performance.

In another development, among the studies that have been reviewed are those of Brik, Rettab, and Mellahi (2011) that had a sample of two thousand two hundred SMEs in

the study conducted in the chamber of commerce and industry of Dubai using mail survey questionnaire. Likewise, the study of Musa, Abdul Ghani and Ahmad (2011) had also investigated the relationship amid EO and the performance of SMEs, together with the role played by MO which served as a moderating predator in the study conducted in Malaysia. Hence, the researchers opined that EO and MO do moderate each other.

Equally, Al-Swidi and Mahmood (2012) examined TQM, EO and organizational performance. Therefore, the study was conducted using a sample drawn from Yemeni bank managers. Thus, the result of their survey revealed that a significant positive relationship exists between TQM, EO, and their organizational performance. Accordingly, the study of Ndubisi and Iftikhar (2012) conducted in Pakistan using one hundred and twenty-four samples of SMEs, the result of the study is in concord with that of Al-Swidi and Mahmood (2012). Similarly, the result derived from the study of Fatoki (2012) demonstrated that there was a positive significant relationship amid EO and SMEs' performance.

Furthermore, Junaidu (2012) investigated EO and export performance of SMEs in the Nigerian Leather Industry, using multiple regression and a mail survey questionnaire with a resource-based view as an underpinning theory used in the study. Thus, the findings of the study show that tangible resources such as financial, operational, communication, human resources as well as intangible resources, such as knowledge, image, and marketing resources, are all strongly and positively related to SMEs' export performance. In the same vein, Wang and Yen (2012) also has argued in

relation to corporate entrepreneurial orientation and performance of Taiwanese SMEs, using multiple regression as a tool for analyzing the data. Thus, a sample of two hundred and sixty-seven SMEs in Taiwan and China were used. Therefore, their study's findings indicated that a significant positive significant relationship exists amid some EO dimensions like innovativeness, pro-activeness, business risk-taking in the Taiwan SMEs' performance.

Likewise, Arief, Thoyib, Sudiro, and Rohman (2013) in their study, employed a quantitative survey research method in one hundred and forty SMEs in Malang, using structural equation modeling (SEM) for data analysis purpose. Therefore, the findings of their study revealed that a positive significant relationship exists between EO and the performance of the Milan's SMEs. In the same vein, several studies' findings revealed that there is a significant association between EO and SMEs' performance relationship (Aliyu, Rogo & Mahmood, 2015; Prato *et al.*, 2013). Similarly, the study of Rosenbusch, Rauch, and Bausch (2013) also established that EO to performance relationship was positive. Also, in the study of Mahmood and Hanafi (2013), which empirically examined the competitive advantage's effect in relation to EO and women-owned SMEs' performance conducted in Malaysia. Thus, the finding of the study revealed that a positive significant relationship exists between EO and SMEs' performance. This is also similar to Alarape (2013) finding, which established a positively significant relationship exist between EO and performance of the SMEs.

Correspondingly, Shukri Bakar and Mahmood (2014) examined leadership transformation and corporate entrepreneurship to SMEs' performance relationship of

the Malaysian institutions of higher education, the sample of two hundred and forty-six valid responses were retrieved out of the total survey questionnaires administered. Yet, the result showed that there is a positive significant relationship amid corporate entrepreneurship and the performance of the Malaysian institutions of higher education; although partial mediation existed between transformational leadership and SMEs' performance.

However, the study of Su, Xie, and Li (2011) had confirmed that there is a mixed curvilinear relationship between EO and the SMEs' performance. Thus, the result indicated that an inverse U-shape relationship exists between new ventures and SMEs' performance, while in the case of established business ventures, the result of the study revealed that, there was a positive significant relationship with the SMEs' performance. Hence, as a result of the above study, therefore, Tang and Tang (2012) undertook a study among one hundred and fifty-five SMEs in northern China and the study confirmed that EO to SMEs' performance was inverted U- shape relationship.

Similarly, Arunchalan, Ramaswani, Herrmann, and Walker (2013) also investigated EO, innovation and SMEs' performance, in which they reported that a positive relationship exists amid EO an innovation and the SME's performance, and it was a linear curved relationship with an inverted U-shape. Thus, a negative relationship between the constructs. So, also the study of Afolabi (2013) revealed that poor EO served as the main challenge facing the entrepreneurs of Nigeria.

Furthermore, Lechner and Gudmundsson (2014) in their study, examined a sample of three hundred and thirty-five SMEs that are randomly selected from Icelandic SMEs. The result of their findings also reported a mixed finding on EO dimensions, SMEs' strategy and performance relationship. Thus, Innovativeness was positively related to differentiation; risk-taking while, aggressiveness was negatively associated with both differentiation and cost leadership. Hence, differentiation and as well as cost leadership strategies were positively associated with SMEs' performance. Similarly, the study of Filser and Eggers (2014) also examined EO and SMEs' performance through the use of multiple regression models as a tool for analyzing the data. Therefore, the study's findings revealed that a mixed relationship exists in a positive manner between risk-taking and innovative idea when compared with the performance of the SMEs, while that of pro-activeness relationship to the SMEs' performance was negatively associated. Based on the arguments discussed above, this study advanced the following hypothesis:

H3: There is a significant relationship between entrepreneurial orientation and performance of small and medium enterprises in Nigeria.

2.11 Access to Finance as a Moderator

The issue of the moderating effect of the term access to finance (AF) can be viewed from the survey replicated by Frank, Kessler, and Fink (2010), in which the study confirms that a positive relationship exists amid EO and performance of the business. Thus, financial capital served as the most common form of resource that can easily be converted into other kinds of resources. Thus, Wiklund and Shepherd (2005) opined that access to finance is important for the performance of small businesses. In other

words, access to finance serves as one of the serious issues responsible for the low performance of the Nigerian' SMEs (Aminu & Shariff, 2016). So, having access to finance can easily enhance the performance of SMEs in Nigeria (Rogo, Shariff & Hafeez, 2017b; SMEDAN, 2012). Similarly, numerous studies have revealed that a superior performance of a firm is quite attributable to the firm's ability to access required amount of financial capital (Aminu & Shariff, 2016; Demir & Caglayan, 2012; Turyahebwa, Sunday, & Ssekajugo, 2013).

Nevertheless, Cheng, Ioannou, and Serafeim (2014) were of the view that access to financial resources is obviously dependent upon the firm's strategies. As such, it is obvious that firms with a high level of skills entrepreneurially will definitely have better chances of accessing financial capital (Gupta & Batra, 2016; Mohammed & Obeleagu-nzelibe, 2014). Likewise, business firms that are highly market-oriented will definitely have a positive influence in terms of profitability (Aminu & Shariff, 2015; Baker & Sinkula, 2009). In fact, it is expected that those firms that are market-oriented have more high-income generation, specifically with proper total quality management implementation. Thus, total quality management practices superiority is undoubtedly a good strategic management thought that business firms (SMEs) can improve its ability so as to have more financial resources since such firms can manufacture superior products that can perform better and compete favorably in the market (Rogo, Shariff & Hafeez, 2017b).

Furthermore, the survey conducted by Akingunola (2011) stated that SME's financing and economic growth have a significant positive relationship with the performance of

SMEs in Nigeria. Likewise, Mazanai and Fatoki (2011) indicated that a direct significant positive relationship exists amid access to financial resources and SMEs' performance. Similarly, Musamli, and Tarus (2013) in their study conducted among the targeted 515 SMEs in Eldoret Town of Kenya. The result of the study's findings revealed that the size of the business is significantly positive on access to finance such that, those SMEs that are larger in size have more chances of accessing financial resources than the smaller SMEs. However, Jabeen (2014) conducted the survey among the 500 SMEs operating their businesses in the Punjab Province of Pakistan by using simple random sampling. Thus, the data of the study was collected by means of a questionnaire, as an instrument for data collection. Accordingly, the findings of the study revealed that as a result of low access to finance, the contribution of EO became quite insignificant to the Punjab SMEs' performance in Pakistan.

Therefore, the findings of the study indicate that lack of financial resources accessibility can easily lead to the interference in relation to the realization of the full potentialities of SMEs as the promoter of the nations' economic growth. Likewise, access to finance served as one of the major imperative issues responsible in relations to the low gross performance of SMEs in Nigeria (Rogo, Shariff, & Hafeez, 2017a; SMEDAN, 2012). Accordingly, Herath and Mahmood (2013), suggested an inclusion of any possible (likely) moderator in undertaking other studies related to strategic orientation with the regards to performance relationship.

However, Rahaman (2011) argued that the effect of sourcing funds internally with regards to SMEs' growth used to decrease once there is an increase in the SME's

access to an external bank credit facility. Thus, as the external sources of financing arbitrary rules are alleviated, then the SMEs will rely less on their retained earnings and other internal sources of funds and switch automatically to external sources of financing; as the primary source of funding their business operations growth. Likewise, the findings of Terungwa (2012) on the study conducted among 700 SMEs operating within Benue and Nasarawa states of Nigeria reveals that those business firms, particularly the SMEs that strive to access funds from the commercial banks are faced with the difficulties as a result of stringent requirements for collateral securities as well as inefficient guarantees schemes. So, generally speaking, new breed SMEs and those existing business firms that have low tangible assets (for instance, land and material properties, owned financial capital, as well as other assets) will really find it difficult to access bank financial resources in form of loans resulting from absence of collateral securities values (Ghimire & Abor, 2013).

Moreover, according to Kira (2013) as well as that of Kira and He (2012) studies found that access to debt financing in SMEs is influenced by some firm's attributes such as Firm's size, location, age industry, business information, incorporation and firm's collateral security. Similarly, Idahosa (2014) found that the lack of enough financial resources with regards to SMEs sector does not only bring about business risk or its failure but rather stopped the SMEs from unveiling the potentials in their market sphere. So, this particular study is also in line suggestions given by Wiklund, and Shepherd (2005), which recommended that more empirical research work needs to be undertaken in a model comprising EO and other constructs with access to financial resources as a moderator on SMEs performance relationships.

Based on the reviewed literature above, it is anticipated that access to finance can be a device through which TQM, MO, and EO, positively relate to Nigerian SMEs' performance. Thus, this serves as one of the vital empirical contributions of this research work due to the fact that it provides a more nuanced clarification on the way and manner how this strategic orientation, as well as strategic management constructs, influence SMEs performance. Although, the study of Jabeen in 2014 had explained that TQM, MO, and EO influence the performance of the firms. However, a lack of empirical evidence on the mechanisms, such as access to finance through which firm performance can be affected is of a great concern. Hence, access to finance may offer the required explanation of how TQM, MO, and EO boost firm performance. Therefore AF can serve as a moderating predator in this study, the following hypotheses were formulated:

H4: Access to finance moderates the relationship between total quality management and the performance of small and medium enterprises in Nigeria.

H5: Access to finance moderates the relationship between market orientation and the performance of small and medium enterprises in Nigeria.

H6: Access to finance moderates the relationship between entrepreneurial orientation and the performance of small and medium enterprises in Nigeria.

2.12 The Underpinning Theories

Strategic management is a field of management that concerned largely on how large firms, as well as SMEs, generate and achieve business performance. Furthermore, there are many theoretical approaches to studying available business resources and

SMEs' performance. As such, this study has adopted the Resource-Based View (RBV) theory as the underpinning theory that explains the relationship between total quality management, market orientation, and entrepreneurial orientation as the independent variable and SMEs' performance served as this study dependent variable. Accordingly, the Pecking Order Theory (POT) has explained the moderating role of AF also adopted so as to support the Resource Base View Theory in this study.

2.12 1 Resource-Based View

The resource-based view (RBV) theory, is a strategic management theory which opines that, a business firm (SMEs) as a combination of inputs (resources) and outcomes generation (capabilities) (Wernerfelt, 1984). Hence, inputs of business enterprises are in two categories, namely: tangible physical or financial (tangible or visible) or invisible and intangible (such as SME's reputation, skills, and experiences, organizational procedures, employee's knowledge, quality improvement). Accordingly, RBV's foundation can be unearthed in the pre-matured studies that had laid emphasis on the importance attached to the resources in the SMEs' performance enhancement (Chandler, 1962; Penrose, 1959). Therefore, the rationale behind postulating this theory (RBV) is on the bases that, the firm's derivation of a sustainable performance advantage will rely on its organisational ability to exploit the potentiality of its bundle valuable tangible and intangible inputs (resources) at their disposal (Fragouli, 2015; Kubuta, 2014; Rumelt, 1984; Wernerfelt, 1984; Wójcik, 2015; Zubac, Hubbard & Johnson, 2012).

Accordingly, Barney (1991) opined that these firm's inputs (resources) must be valuable, rare, inimitable and non-substitutable (VRIN) resources. Specifically, RBV became an apparent theory that gave an explanation with the regards to the SMEs' performance, which dealt with the inputs that are heterogeneous. Similarly, the issue of RBV reflects the collective literature which pointed out that business enterprises could gain economic benefit as the source of exclusive assets of the business that are valuable, rare, inimitable and non-substitutable with any other business resources (Barney, 1991; Conner, 1991; Ringim, 2012). Thus, RBV served as one of the underpinning theories the researcher used in conducting this study, which explains the firm's internal resources and sustenance of retiring benefit of the superior business firm performance relationship (Barney, 1991; Fahy, 2000; Ringim, 2012).

Furthermore, RBV proposes that, inputs are all processes, capabilities, orientations, skills, assets, capabilities, routine-events, information, knowledge, attributes and so on controlling by the firms, that will likely enable them in mapping out modalities in enhancing sustainable advantages of the firm performance (Alvarez & Barney, 2007; Janney & Dess, 2006; Penrose, 1959; Peteraf & Barney, 2003; Wernerfelt, 1984). Additionally, it is also explaining the question of what is it contributing towards firms' success and also theorizing that greater strength should be put in place with regards to cushioning the effect of every internal input (resources) available and capabilities in the firm (Shannak, Masa'deh, Al-Zu'bi, Obeidat, Alshurideh & Altamony, 2012; Uche, 2015).

Therefore, the recent focus of RBV is towards notion of internal firms' inputs (resources) that expresses the role of "human capital" as the base and key inputs crucial to firms' competitiveness and performance (Barney & Felin, 2013; Campbell, Coff & Kryscynski, 2012; Eniola, & Ektebang, 2014; Foss & Felin, 2009; Foss, 2011; Garbuio, King and Lovallo, 2011; Khan, 2013). Hence, people as resources are important for the fact that, through micro employees' competencies, coordinated efforts and, interactions, firms' value is created, and its main objectives are accomplished (Campbell, Coff & Kryscynski, 2012; Foss & Felin, 2009). Accordingly, as opined by Yunis, Jung, and Chen (2013) as a sustainable performance management strategy that a firm can make use of, for the purpose of practices and principles of TQM to be used in form of human resources management capabilities and competencies as systems, and processes so as to enable organisational performance enhancement.

Furthermore, from the standing point of view with regards to 'people' or 'human' as a vital internal inputs or organisational resources, the RBV's notion of internal resource is theorizing the origin of firm's value, competitiveness, and capabilities related to market orientation, and entrepreneur orientation as the inputs of firm's internal resources for the purpose of inducing their performance outcomes is better explained by close examination in the valuable features of the people embedded in the firm (Barney & Felin, 2013; Campbell, Coff & Kryscynski, 2012; Foss, 2011; Khan, 2013).

Likewise, the internal resources concept is suggesting that, it is through the individuals' performances originating from individuals' behaviours, motivations, perceptions, actions and interpersonal relationships that the organisational values, aims, capabilities, performance, and daily activities are created and existed (Barney & Felin, 2013; Barney, Ketchen, & Wright, 2011; Foss, 2011; Hodgson, 2012). Hence, based on this notion, it is necessary for the firm to first understand the people that constitute the organization before exploring matter at the firms' level (Campbell, Coff & Kryscynski, 2012; Foss, 2011; Wright & McMahan, 2011). Thus, this recent development is bringing legitimacy for its internal resources notion as an explanatory mechanism underlying this study's examinations and finding.

Therefore, this study is focusing on Small and Medium Enterprises' performance, rooting from the contributions of interaction between their internal resources level that are valued, rare to be found, uneasy to replicate and non- substitutable with other resources and behavioural traits, in which it may ultimately be gearing for the sustainable performance as well as the success of SMEs. Thus, the RBV as a discrete underpinning theory, is to similarly underline the important role of the basic actors such as the respondents of SMEs together with their behavioural attributes such as total quality management, market orientation, and entrepreneurial orientation as individual-foundation contributions in inducing the outcomes of SMEs performance (Barney & Felin, 2013; Foss, 2011; Hodgson, 2012; Khan, 2013).

In the nutshell, these individual contributions may hypothetically exercise a significant influence on the success of the employees as well as other stakeholders of

SMEs and eventually to the business organization they are working with (Chan, 2015; Dollinger, 2003; Gisip & Harun, 2013; Lin, Wu & Lin, 2008). Therefore, that internal inputs or resources that are intangible such as attributes or qualities and orientations that are embedded in workers may only contribute and offer a sustainable performance advantage if their potential outcomes that are valuable when effectively rendered to SMEs or organisations (Barney Ketchen, & Wright, 2011; Chan, 2015; Janney & Dess, 2006; Penrose, 1959; Wernerfelt, 1984). In addition, the possession of these management qualities and orientations are barely not important but what really matters is how individual owner or manager in the SME and in this study the managers or owners themselves have to effectively and efficiently utilize their own resources as transformational towards total quality management, market orientation, and entrepreneurial orientation as a productive internal resources of the firm's attributes in a manner capable of producing superior performances and advantageous to their SMEs' businesses.

Accordingly, the RBV concept had been applied broadly by various studies to clarify how internal resources impacted sustainable firm's performance (Barney, 1995; Barney Ketchen, & Wright, 2011; Foss, 1998) and also many new studies are increasingly employing RBV's notion to explain how internal resources that are intangible and linked to individual human behavior such as an entrepreneurial attributes, as key determinants in the first place to realize the internal resources of the firms for sustainable performance advantage (Barney Ketchen, & Wright, 2011; Foss, 2011; Garbuio, King & Lovalla, 2011; Khan, 2013; Mindila, Rodrigues, McCormick & Mwangi, 2014; Wright & McMahan, 2011).

Additionally, various studies suggested that owners or managers accordingly, by their roles, and by virtues of their gross impact on the overall SMEs' performance (Bass, Avolio, Jung & Berson, 2003; Howell, Neufeld & Avolio, 2005; Simon Nobre & Walker, 2011) are internal working condition and practice as an integral part that are instrumental in facilitating organisations so as to thrive in complex and changing environments (Akingbola, 2013; Bento, 2011; Yukl, 2010). Therefore, the study of this nature may be formally assigned to owners and managers in their respective industries, firms, branches, departments, and units alongside with their potentially, valuable entrepreneurial attributes (i.e. TQM, MO, EO and the performance of SMEs) are regarded as a key internal inputs or resources valuable to the Nigerian SMEs.

2.12.2 Pecking Order Theory

Pecking order theory (POT), was discovered by a scholar known as Donaldson, in 1961 (King'ola, 2017). Accordingly, Donaldson, (1961), postulates that the expenses of firms increase with asymmetric information. Thus, positing that the firms' financing is generated from three sources namely: internal funds, debts, and equity. So, according to Boundless (2015), firms' favors internal funds to debt and the least method of funding method is equity. In essence, the reason was given by Boundless (2015) at least preferred equity is the undervaluation of the investor in the firm they are hoping to invest. In the same vein, Adomako, Danso and Ofori Damoah (2016), asserted that scholarly evidence advocates that access to firm's financial resources can buttress the entrepreneurial implementation effectiveness and plans of financial management by allowing business firms to have access to financial resources that may

be of more collateral requirements demand but at the same time also have a better chance of success in terms of boosting firms' performance.

Therefore, the pecking order is said to possess pro and cons in its application. However, the cons given by Liesz (2001) can be argued to relates or concern more to large or SMEs. In essence, the limitation of peck order theory given by Liesz (2001) includes the inability of the theory to include the influence of tax, financial misery, agency expense, security, and insurance cost as well as not acknowledging the issues that may arise during financial slack. Despite these disadvantages, POT, (Copeland & Weston, 1988) argues that POT provides for the dynamics of the SMEs to command an optimal capital structure for a given company at any particular point in time. Also, Liesz (2001); Chen and Chen (2011) concluded that inclusion of POT into capital structure encourage critical thinking.

2.13 Theoretical Framework

Taken into consideration with the reviewed empirical literature in this survey and numerous propositions given by several scholars in several studies, this particular study has developed a research framework for the purpose of examining the effect of access to finance as a moderating on the relationship amid total quality management, market orientation and entrepreneurial orientation and SMEs' performance in Nigeria.

The framework in the present study has three important exogenous latent variables that acted as the valuable resources of SMEs, i.e. total quality management, market orientation and entrepreneurial orientation. Accordingly, the term SMEs'

performance, in this study acted as an endogenous construct, whereas access to finance as an intervening variable of this particular study served as the moderator of the relationship among the Nigerian SMEs.

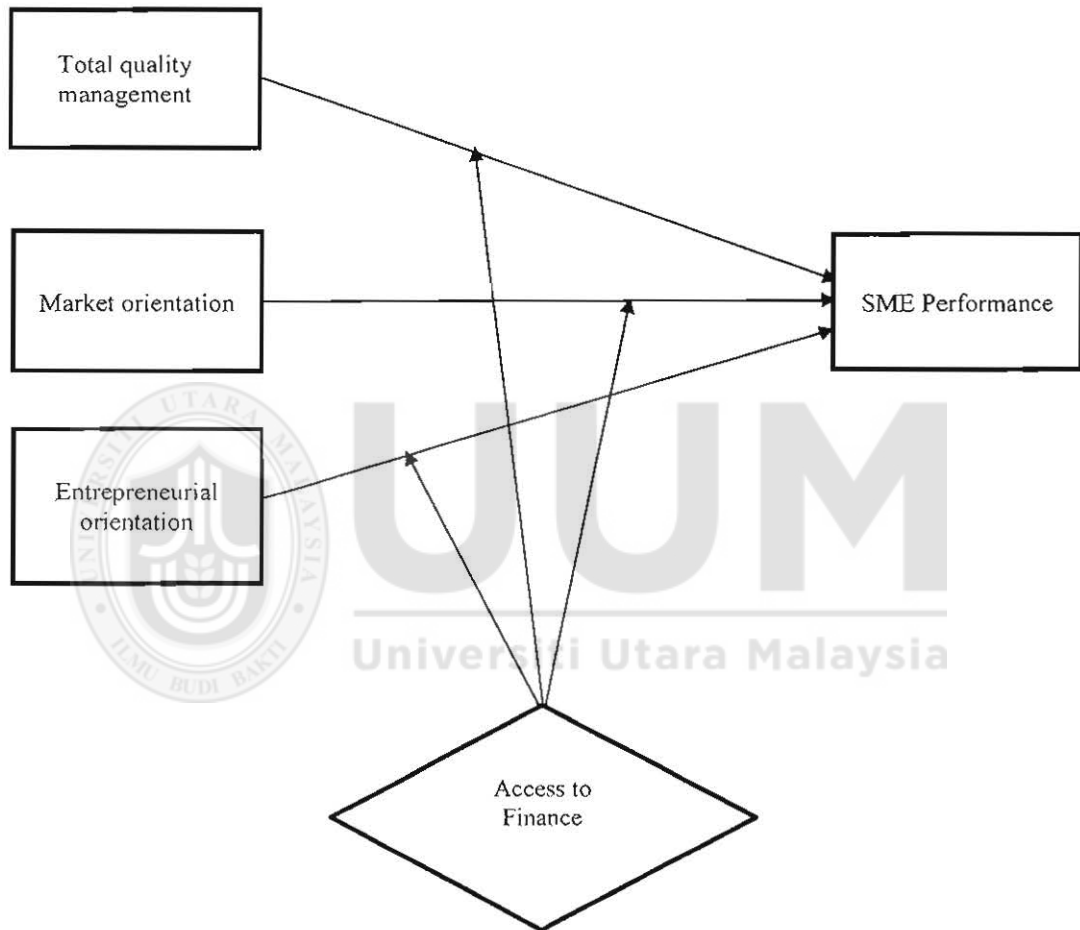


Figure 2.1
Theoretical framework

In essence, the present study focused on the performance of SMEs, in which it was originated from the input of interaction between their own micro-level behavioral traits, which may ultimately be geared to the competitiveness as well as the success of SMEs. Furthermore, the concept of resource-based view (RBV) as an

discrete foundation of business organisational resources have the notion that, the business organisational resources are said to be valuable, rare, inimitable and non-substitutable (VRIN) in that those business resources are also to underline the important role of the basic actors such as the SMEs' unit of analysis in conjunction with their behavioural traits like that of total quality management, market orientation, and entrepreneurial orientation as individual-foundation contributions in inducing the outcomes of the performance of the Nigerian SMEs (Barney & Felin, 2013; Foss, 2011; Khan, 2013; Ployhart & Moliterno, 2011; Rogo, Shariff, & Hafeez, 2017a). So, these individual contributions may hypothetically exercise a significant influence on the SMEs' employees as well as other beneficiaries' success and eventually to the business organisations they are working with (Chan, 2015; Dollinger, 2003; Gisip & Harun, 2013; Lin, Wu & Lin, 2008; Yang, 2008).

Furthermore, the internal inputs or resources that are intangible such as attributes or qualities and orientations that are embedded in workers may only contribute and offer a competitive advantage if their potential outcomes that are valuable when effectively rendered to SMEs or organisations (Foss, 2011; Janney & Dess, 2006; Penrose, 1959; Wernerfelt, 1984). In addition, possession of these management qualities and orientations are barely not important but what really matters is how individual owner or manager in the firm and in this study the managers or owners themselves have to effectively and efficiently utilize their own resources as transformational and total quality management, market orientation and entrepreneurial orientation as a productive individual or micro foundation attributes in a manner capable of

productive micro-foundation attributes and also in a manner capable of producing superior performances advantageous to their SMEs.

Therefore, RBV concept had been applied broadly by various studies to clarify how internal resources impacted competitiveness (Barney, 1995; Barney Ketchen, & Wright, 2011) and also many new studies are increasingly employing RBV's individual or micro-foundation notion to explain how internal resources that are intangible and linked to individual human behaviour such as an entrepreneurial attributes, as key determinants in the first place to realize micro-level performances and then consequently influence macro or organisational-level performance and competitive advantage (Barney Ketchen, & Wright, 2011; Foss, 2011; Garbuio, King & Lovalla, 2011; Khan, 2013; Wright & McMahan, 2011). Hence, various studies suggested that, owners or managers accordingly, by their roles, and by virtues of their gross impact on the overall SMEs' performance (Bass, *et al.*, 2003; Simon Nobre & Walker, 2011) are internal working condition and practice as an integral part that are instrumental in facilitating organisations so as to thrive in complex and changing environments (Akingbola, 2013; Bento, 2011; Yukl, 2010).

Consequently, the study of this nature may be formally assigned to owners and managers in their respective industries, SMEs, branches, departments, and units alongside with their potential, valuable entrepreneurial attributes (total quality management, market orientation, and entrepreneurial orientation) that are valuable to the Nigerian SMEs.

2.13 Chapter Summary

The chapter has provided some reviewed literature concerning general issues with regards to this study. At the same time, it has provided some of the operational definitions that were related to the whole study's variables such as SMEs performance, TQM, MO, and EO, respectively. Accordingly, some of the empirical studies that are related to each of these predicting variables to these important constructs are discussed fully, hence, the hypotheses were also developed and tested in this very study. More so, in another development, the relationship between the variables that are independent in nature together with the moderating predator of access to finance to the dependent variables are also provided in this very chapter. As such, the underpinning theories which comprised the resource-based view (RBV) together with that of pecking order theory (POT) served as underpinning theories; and also, the conceptual framework as explained with its relationship to the whole constructs as established in the chapter. Therefore, the next chapter will discuss the methodology used in the present study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter is purposely aimed at describing the methodology used in this study. Therefore, before discussing other important approaches, strategies, and techniques or the methodologies that have been employed in carrying out this research work. According to Bos, Brown and Farrelly (2013), “a philosophical framework within which data is generated and analyzed for a research study is termed as a methodology”. Specifically, it has explained issues such as research paradigm, research design, and the population of this study, sample size, and the sampling techniques to be adopted. Furthermore, the chapter has also discussed the operationalization of the study’s constructs, the questionnaire design that has been used for the purpose of data collection, methods of data collection, and the techniques that have also be employed in data analyses.

3.2 Research Paradigm

Research paradigm refers to as the Worldviews or basic belief system that guides the study (Guba & Lincoln, 1994; Kura, 2014). So, according to Bryman and Bell (2013), the term research paradigm can be divided into two main groups, namely: positivist paradigm and that of interpretive paradigm. Positivist paradigm, also known as the scientific paradigm, served as a logical contribution of Auguste Comte (1798–1857) as a French philosopher (Kura 2014). Thus, the principle of positivism had become the utmost broadly practiced research paradigm with regard to the social science courses

(Neuman, 2011). So, positivists had the premonition that social reality can independently be studied by a researcher (Scotland, 2012). Likewise, positivists assumed that social life can as well be represented in a quantitative term by using experimentation and correlation for the determination of cause-and-effect relationships amid constructs (Creswell, 2009). Thus, Kura (2014) opined that positivists use to employ a deductive method of reasoning in which, it aimed to test hypotheses that reflect causal relationships amid constructs that are theoretical as well as empirically based. Additionally, the major aim of deductive research can be attributed to the drawable conclusions that are generalizable, which also enable a theory revision (Bryman & Bell, 2007; Deshpande, 1983). Summarily, Neuman (2011) defines positivists as individual researchers that support value-free science, pursues exact quantitative measures, tests causal theories with statistics, and believes in the importance of replicating studies.

However, interpretive paradigm also referred to as anti-positivist or constructivist, it is termed as a philosophical underpinning of a German philosopher as well as a mathematician, in the person of Edmund Husserl (1859-. 1938) (Kura, 2014; Mack, 2010; Willis, 2007). Although, interpretive philosophical approach unlike that of positivist paradigm, it assumes that human social life can be studied qualitatively via sequential means including interviews, participant observation, case studies, and so on (Neuman, 2011). Additionally, interpretivism philosophical thinkers used to view social reality in a subjective as well as socially constructed manner, with both participants and researchers interacting so as to understand a phenomenon from an individual's perspective (Creswell, 2009; Kura, 2014).

The purpose of this study was to test a hypothesized structural model. The model theorized that access to finance has a significant moderating effect on the relationships amid total quality management, market orientation, entrepreneurial orientation was postulated to have a significant influence on SMEs performance in Nigeria. Thus, based on the research objectives, a total number of six (6) objectives were stated and six (6) hypotheses have been formulated and tested.

Furthermore, based on the research framework developed by the researcher, this study focuses on theory testing as well as verification rather than developing a new theory, hence the deductive research approach was employed. Consequently, drawing on the assumptions that were philosophical as discussed above, this survey predominantly adopts the positivist paradigm, on the bases of objectivism that served as the underlying epistemological as well as ontological positions.

3.3 Research Design

According to Sekaran and Bougie (2013), the concept of research design is a strategy or a plan that explains how data can be collected and analyzed with a view to answering or resolving the research questions of the study. Similarly, Kumar, Talib and Ramayah (2013) opined that, research design can also be referred to as a blueprint for a phenomenon (study) that specifies the basic steps (procedures) to be identified and followed by anyone, conducting a research or any other kind of study for the purpose of achieving the desired (research) objectives. Similarly, Liu, Li, Mizerski & Soh (2012), defined research design as a strategy (plan) for collecting the data needed to address research objectives. Moreover, a typical research design defines the

purpose of the study, the strategy employed in the study, the study's setting, the extent of researcher interference, the research time horizon, and the level at which the data were analyzed (Sekaran & Bougie, 2013). Furthermore, the type of research design to be adopted depends on the purpose and nature of the study, whether it is exploratory, descriptive, or causal. Basically, research design is of three types, namely: exploratory research design, descriptive research design, and causal research design.

Exploratory research is the type of research, conducted when too little or no information is available on how related problems are resolved in the past. It is undertaken when a researcher needs an in-depth knowledge in order to understand and address certain problems. Exploratory research involves the gathering of qualitative data through qualitative approaches. It often uses methods such as focus groups, interviews, or case studies. The findings or results of exploratory researchers are not generalizable to the whole population. It is less structured and flexible in nature (Kumar, Talib, & Raamayah, 2013; Sekaran & Bougie, 2013).

Descriptive studies are undertaken for the purpose of describing a particular phenomenon. They are designed with the notion of collecting data that provide a full account of the subject matters being studied. The nature of this particular type of data can either be quantitative or qualitative. It is the process of gathering information that is either quantitative or qualitative valid information (data). The descriptive research design is considered appropriate when a researcher is interested in investigating relationships among variables to describe population or situations. Such studies are correlational in nature, as they describe the relationships that exist among variables.

Descriptive researches could be cross-sectional or longitudinal. It is cross-sectional when data for the study are collected at one spot, and it is longitudinal when data for the study are collected at two or more times (Kumar, Talib, & Raamayah, 2013; Sekaran & Bougie, 2013).

Causal studies are the type of study undertaken to determine whether one variable can influence or causes another variable to change. In a causal study, the researcher is more or less interested in delineating the factors that cause the problem. It is conducted for the purpose of investigating the cause-and-effect relationship between constructs (variables), where one variable influences or directly affects another variable (Kumar, Talib, & Raamayah, 2013; Sekaran & Bougie, 2013). Furthermore, research design choice can be based on the purpose as well as the nature of the study undertaken. This type of study is mainly descriptive in nature.

Therefore, a descriptive research design was adopted. Firstly, a descriptive research design was adopted due to the fact that, the rationale of this study is to describe the nature of relationships that may exist among total quality management, market orientation, entrepreneurial orientation, access to finance, and SMEs' performance in Nigeria. Secondly, this study is correlational in nature, and the survey method (questionnaire) was used for purpose of data collection. Thirdly, it was a cross-sectional study, as data for this study were collected at once. Fourthly, the probability sampling technique was adopted in order to make the findings of this study generalizable, and the unit of analysis is the organization through owner/ manager. Eventually, there was a minimal level of interference with regards to the researcher.

3.4 Population of the Study

The population is defined as the entire group of people or elements that the researcher wants to study (Sekaran & Bougie, 2013). Similarly, population referred to a group of individuals who have identical features that a researcher can identify and study (Creswell, 2012). While an element is an individual member of the population (Sekaran & Bougie, 2013). According to SMEDAN (2013) as well as World Bank (2013), the total number of MSMEs in Nigeria, as at 2013 stood at 37,067,416 consisting of micro (36,994,578), small (68,168) and medium (4,670). Therefore, as depicted in table 3.1, the population of the study comprises the entire SMEs operating in Kano, Kaduna, and Sokoto states of North-western Region of Nigeria.

Table 3.1
Population
State

SMEs population by state	
1. Kano	8,286
2. Kaduna	2,882
3. Sokoto	841
Total	12,009

Source: SMEDAN (2013)

The unit of analysis of the present study is organizational whereby, owners/managers in this particular study served as the business organizations' representatives since the organization cannot respond to, the owner/ managers can easily act on behalf of the organization (Rogo, Shariff, & Hafeez, 2017a). On the other hand, although SMEs' performance has been surveyed, accordingly, owners/managers as the representatives of the SMEs under study, they were chosen and acted as key informants for their

business organizations as stated above by the researcher since SMEs could not speak for themselves.

Besides, the SMEs' respondents (owners/managers) that served as the informants of their business firms, thus, whose duties are to execute the whole business organisational activities such as business plans; strategies, policies, rules, and regulations; as well as the procedures in carrying out those business operations (Aminu, 2015; Aminu & Shariff, 2016). Furthermore, the SMEs' owners/managers are well-informed with regards to the daily operational activities of the business firm and the owners/managers are also considered as the most knowledgeable people in that business firm particularly, on its organisational business operations (Shehu, 2014; Ibrahim & Mahmood, 2016; Rogo, Shariff & Hafeez, 2018).

3.5 Sample Size

According to Kumar, Talib, and Ramayah (2013), a sample may be regarded as a subset of the population under study. Similarly, Zikmund, Babin, Carr, and Griffin (2013) defined sample as a subset (some part) of the larger population of the study. The sample needs to be taken, this is because sample in a study becomes mandatory for the following rationales. In the first place, it is not always possible, to study the whole population at once in a particular study. Secondly, the samples are specifically taken due to the purpose of generalizing the research findings.

Due to the fact that, Nigeria as a nation, is very wide with a total land mass of 923,768 km², comprising of six geopolitical zones and 36 states, plus Abuja, the Federal

Capital Territory (Charles, 2013). Therefore, a sample size needs to be chosen to bear in mind the research philosophy (positivism) is guided by the desire for generalization of the research findings (Zikmund et al., 2013). The sample of this study is 372 drawn from a population of 12,009 SMEs that are operating in Kaduna, Kano and Sokoto states, Nigeria. Hence, the three states are the pioneer and old commercial cities/centers right from Trans-Sahara trade in the old Northern region of Nigeria (Gorondutse, 2014).

Consequently, the sample size for this study was determined by using Dillman's of 2007 formula for calculating the study sample size in which, it is more recent and precise compared to that of Krejcie and Morgan's (1970) population sample size table. Hence the ideal sample size for a population of 12,009 by using Krejcie and Morgan's (1970) population sample size table is 370 but for the fact that, the actual population of this study was more than the 10,000 in the Krejcie and Morgan's (1970) population and sample size table, the sample size was rounded up to 370. However, it will be more accurate to calculate the sample size using the most current and precise formula postulated by Dillman in that, the sample size for this study is calculated and arrived at 372.16 or approximately 372 SMEs using Dillman (2007) sample size formula written below.

$$N_s = \frac{(Np)(p)(1-p)}{(Np-1)\left(\frac{B}{C}\right)^2 + (p)(1-p)}$$

Where:

N_s = the actual sample size

Np = Size of population which is 12,009

P = the population proportion expected to choose among the two response categories is 0.5

B = Sample error at 0.05 (5%)

C = Confidence level at 0.05 is 1.96.

Therefore, the sample of this study is calculated as follows

$$n = \frac{(12,009) (0.5) (1-0.5)}{(12,009 - 1) \left(\frac{0.05}{1.96} \right)^2 + (0.5)(1-0.5)}$$

$$n = \frac{3,002.25}{12,008 * 0.000651 + 0.25}$$

$$n = \frac{3,002.25}{8.067}$$

Therefore, $n = 372.16 = 372$

Table 3.2
Sampling frame

State	SMEs Population by state	the disproportion of the sample for each state
1. Kano	8,286	137
2. Kaduna	2,882	125
3. Sokoto	841	110
Total	12,009	372

Source: SMEDAN (2013)

3.6 Sampling Technique

Sampling is defined as the process of choosing an adequate number of elements from the population so that a study of the sample and an understanding of its characteristics make it possible to generalize such characteristics to the entire population (Sekaran & Bougie, 2013). Hence, there are two major types of sampling techniques namely; probability (random) and non-probability (non-random) sampling. In a probability sampling, every element in the population has a chance of being selected. While, in a

non-probability sampling, every element in the population does not have a chance of being selected. According to Sekaran and Bougie (2013), the type of sampling technique to be adopted depending on the factors such as the extent of generalizability desired, time and other resources required, and the purpose of the study.

Probability sampling can further be classified as simple random sampling, stratified sampling, systematic sampling, and area or cluster sampling (Zikmund et al., 2013). In simple random sampling, all elements of the population have an equal chance of being selected. It is good when the population is small and homogenous and the elements to be selected depending on the random numbers that are generated. It is easy to calculate when the sampling frame is small, but impracticable when the sampling frame is large. While, in a stratified sampling, the population is categorized into distinct groups called strata, and every element in a stratum has a chance of being selected. Each stratum is sampled as a subset of the entire population, and from each stratum individual elements can be selected randomly. Also, stratified sampling allows for the adequate representation of various groups of interest, but it could be cumbersome stratifying the population into different strata (Kumar, Talib & Ramayah, 2013).

On the other hand, in a systematic sampling, the target population is serially listed, and elements of the population are selected at intervals. It allows for the selection of every n th element, which means the value of the n th element must be determined. It is determined by dividing the population by the sample size (Sekaran & Bougie, 2013). The samples from systematic sampling are evenly spread over the target population,

but all the elements do not have the same selection probabilities. In a cluster sampling, the population is divided into clusters, and samples are then selected from such clusters. In a cluster sampling, a subset of clusters is taken as the primary sampling units; (Sekaran & Bougie, 2013).

In essence, Non-probability (non-random) sampling can also be divided into accidental (convenience) sampling, quota sampling, snowball sampling, and judgmental sampling. In a convenience sampling, information is collected from the available population while in a quota sampling; all groups are represented in the study by assigning a quota based on identified features. Snowball sampling, on the other hand, is a situation where one respondent is to be used in generating names of other respondents. In a judgmental sampling, also called purposive sampling, elements or subjects are to be selected based on their ability to provide the information required (Kumar, Talib & Ramayah, 2013; Sekaran & Bougie, 2013).

Therefore, this study has adopted stratified random sampling. Thus, the stratified random sampling technique was adopted because of the need to generalize the findings of this study and population is categorized into distinct groups called strata, and every element in a stratum has a chance of being selected. Each stratum is sampled as a subset of the entire population, and from each stratum individual elements can be selected randomly. A number of empirical studies on SMEs in the Nigerian context have adopted this sampling technique (Abubakar, 2016; Ismail, 2018).

3.7 Operationalization of Variables

3.7.1 SMEs Performance

Performance is defined as a measure of the achievement of firm objectives (Daft, 2009). In the same way, this study will operationally define the performance of a firm as the SMEs' ability to effectively and efficiently utilize the available inputs (resources) so as to survive and at the same time, to cater the needs of customers which may eventually lead to the increase in GDP and creating employment opportunities to the teeming unemployed youths in Nigeria. Additionally, the study had operationalized performance as a one-dimensional construct using an index of six performance measures that were adapted from Calantone, Cavusgil, and Zhao, (2002); Keskin, (2006); Lin, Lee, Chang, and Ting, (2008). All items were gauged on a seven-point Likert type scale (1 = Strongly disagree; 2 = Disagree; 3 = Somewhat disagree; 4 = Neither agree or disagree (Neutral); 5 = Somewhat agree; 6 = Agree; 7 = Strongly agree).

Accordingly, organizational performance is a construct with multiple measures. As such, organizational performance can be assessed using financial and non-financial measures. Although, financial measures can be determined objectively from archival records and also, measured subjectively through self-reported data. So, existing literature acknowledges that financial measures from archival data and through self-reported data are reliable in assessing organizational performance, as they do not produce significantly different results (Rauch *et al.*, 2009). In essence, this study has adopted self-reported (subjective) performance measures in assessing the performance of SMEs. Thus, it was argued that self-reported data provides an opportunity for

researchers to assess multiple organizational performance measures (Rauch *et al.*, 2009). Hence, the performance measures to be considered in this study were: profitability, return on assets (ROA), market share, growth, and overall business performance. Growth was measured in terms of increase in revenue. Profitability, ROA, growth, and overall SMEs' business performance were measured in an absolute term, while, market share was measured in a relative term.

Furthermore, the concept of performance can be operationalized as SME's ability to have an access towards the level or edge of achieving success or otherwise within a given time frame so as to maximize its potentialities. The performance scale in which subjective (non- financial) measures were used in the present study were adapted from the study of Calantone, Cavusgil, and Zhao, (2002); Keskin, (2006); Lin, Lee, Chang, and Ting, (2008) and it is made up of 6 indicators, which are as follows:

- i. Compared to the last 3 years, our product reaches a wider market.
- ii. Compared to the last 3 years, our firm increases product sale.
- iii. Compared to the last 3 years, our firm's profit has decreased.
- iv. Compared to the last 3 years, the level of complaints from our customers has decreased.
- v. Compared to the last 3 years, the number of our employees has increased.
- vi. Compared to the last 3 years, the number of our customers has increased.

Therefore, based on the findings of Suliyanto and Rahab (2012) in their empirical study the result showed that the construct reliability is 0.9.

3.7.2 Total Quality Management

According to Demirbag, Koh, Tatoglu, and Zaim, (2006); Mahmood, Qadeer and Ahmaed (2014), total quality management (TQM) refers to a holistic strategic management approach, which involved all stakeholders for customer focus, continuous improvement in quality, employees' involvement and top management support in order to achieve customer satisfaction which will enhance the quality delivery and reliability on the part of their suppliers. The instrument for TQM was derived from the four (4) dimensions as stated and elaborated by Mahmood, Qadeer and Ahmed in their study conducted in 2014, thus, the dimensions in the present study were measured as one-dimensional construct using eight (8) and adapted from the study of Chenhall (1997)). Therefore, the measurements taken in this study was in line with the measurement items used unidimensionally in the study that was conducted by Abubakar (2016) among the 741 manufacturing firms that are located in Kano and Kaduna states of Nigeria. Hence, these items include:

- i. Our firm implements programmes to improve the quality delivery of materials and components provided by suppliers.
- ii. Our firm implements programmes to improve the reliable delivery of materials and components provided by suppliers
- iii. Our firm implements programmes to reduce waste or non-value added activities throughout the production process.
- iv. Programs to reduce time delays in manufacturing and designing products are implemented in our firm.
- v. Our firm involves all employees in quality improvement programmes, including training and involvement in improvement teams.

- vi. All functional personnel, such as manufacturing, marketing, R & D are Involved in strategy formulation in our firm.
- vii. Our firm develops close contact with manufacturers and customers.
- viii. Our firm implements programmes to coordinate quality improvements between parts of the organization.

The Chenhall's (1997) Total quality management scale has yielded a Cronbach alpha value of 0.88, which demonstrates the satisfactory internal reliability of the instrument.

3.7.3 Market Orientation

Market orientation is seen here as any deliberate attempt to consider the needs of the customer as the top priority. The instrument for MO comprised of three dimensions, measured as a one-dimensional construct using eleven (11) items adapted from the study of Slater and Narver (1995). In essence, the questionnaire distributed for the data collected in this study were written in the English language, since owners/managers are knowledgeable, moreover, the English language is the official language in Nigeria. Hence, market orientation had been treated as a unidimensional latent variable which was in line with the prior work of Sulyanto and Rahab (2012), Aminu (2015); Pelham and Wilson, (1995); Shah and Dubey, (2013); Shehu (2014); and Wilson, Perepelkin, Zhang, and Vachon, (2014). The items include:

- i. Our firm seeks to create value-added customer product.
- ii. Our firm tries to understand the needs of the customer.
- iii. Our firm strives to provide customer satisfaction

- iv. Our firm provides after-sales service for customer satisfaction.
- v. Salesperson sharing of information about our firm's competitors.
- vi. Our firm responded quickly to the actions of competitors.
- vii. Our firm always responds to competitors' strategies taken.
- viii. Our firm has a target to create the product competitiveness.
- ix. There is coordination across and inside our firm.
- x. There is cooperation between divisions in formulating marketing strategy in our firm.
- xi. All parts of our firm participated in the creation of added value for customers.

Based on the empirical study conducted by Suliyanto and Rahab (2012), the construct has a reliability value of 0.986.

3.7.4 Entrepreneurial Orientation

Entrepreneurial orientation is seen here as the top management strategic orientation activities that involve a lot of crucial issues with regards to these important dimensions of EO such as, innovativeness of an entrepreneur, his pro-activeness in terms of taking competitive advantage over his counterparts and the last but not the least among the dimensions of EO and the most critical is that of risk-taking. The instrument for EO comprised of three dimensions, measured as a one-dimensional construct using nine (9) items adapted from Covin and Slevin (1989). So, it comprises of three dimensions, namely; innovativeness (3 indicators), proactiveness (3 indicators), and risk-taking (3 indicators). The measured items are based on a 7-point Likert scale, in which a scale of 7 is 'strongly agree' to a scale of 1 signifies 'strongly

disagree' Accordingly, in this study EO was used as a single construct as earlier mentioned adapted from Naala (2016); which served as a basis, as supported by the studies conducted previously by Al-Swidi and Mahmood (2012); DeClercq, Dimov and Thongpapanl (2010); Idar and Mahmood (2011); Mahmood and Hanafi (2013); Richard, Wu and Chadwick (2009). The items are:

- i. For the last 3 years, our firm favors a strong emphasis on innovation, research, and development of new products/services.
- ii. Our firm often the first to introduce new products/services at a high rate.
- iii. In our firm, changes in product or services are usually been quite dramatic.
- iv. In dealing with competitors, our firm typically initiates actions which competitors initiate.
- v. Compared with competitors, our firm is very often the first business to introduce new administrative techniques, products/services, operating technologies etc.
- vi. Our firm typically adopts a very competitive posture toward competitors.
- vii. Our firm has a strong proclivity for projects with normal and high-risk rates.
- viii. Our firm believes that because of the nature of the environment, bold, wide-ranging acts are necessary to achieve the objectives.
- ix. When confronted with decision-making situations involving uncertainty, our firm typically adopts a bold, aggressive posture in order to maximize the probability of exploiting potential opportunities.

Based on the empirical study conducted by Naala (2016), and analyzed using regression analysis; the result of their study showed that the Cronbach's alpha was 0.731.

3.7.5 Access to Finance

In another development, the term access to finance refers to the insufficiency in financial as well as non-financial hurdles in terms of acquiring working capital and other required services (Ganbold, 2008). So, this study adopts this definition and operationalizes the concept of financial resources access as a *modus operandi* by SMEs in having the opportunity of sourcing financing with a very low or even absence of any sort of financial as well as non-financial predicaments. According to Wiklund and Shepherd (2005), resources availability can likely influence the owner-managers satisfaction and agree with the questions. However, if the resources are not available for the SMEs' development, it is likely that the owner-manager will be dissatisfied and disagree with the questions.

Therefore, a subjective measure of the owner-managers level of agreement based on satisfaction with his or her access to financial capital can measure his or her accessibility to financial resources. In line with this argument, the instrument for AF is measured as a one-dimensional construct using eight (8) items adapted from Aminu and Shariff (2016). The instrument of access to finance as the moderating variable was measured on a seven-point Likert scale (1 = strongly disagree; 2 = disagree; 3 = somewhat disagree; 4 = neither agree nor disagree (neutral); 5 = somewhat agree; 6 = agree; 7 = strongly agree). The items are as follows: That

- i. In our firm, business is financed with personal funds satisfactorily.
- ii. In our firm, the business is financed with the money generated from retained earnings satisfactorily.
- iii. In our firm, business is not satisfactorily financed with external financing due to the high-interest rate charges.
- iv. In our firm, funds are sourced from family and friend in financing the business.
- v. In our firm, business access financing through lease financing.
- vi. In our firm, business is satisfied with trade credit facilities enjoyed by our suppliers in financing the business.
- vii. In our firm, business is not satisfied with the high collateral requirements imposed accessing external financing.
- viii. In our firm, business is not satisfied with its operations due to lack of financial information.

Based on the empirical study conducted by Aminu and Shariff (2016), and analyzed using reliability analysis; the result of their study showed that the Cronbach's alpha was 0.77.

Table 3.3
Operational Definitions and Items]

S/N	Construct	No. of Items
1	Total quality management	08
2	Market orientation	11
3	Entrepreneurial orientation	09
4	Access to finance	08
5	SMEs Performance	06
	Total	42

3.7.6 Control Variables

For the purpose of ensuring the usefulness or robustness of result, the study included Firm size, firm age and the nature or type of the industry as control variables. This is in line with the studies of (Aminu, 2015; Mu, & Di Benedetto, 2011; Wiklund & Shepherd, 2005). Accordingly, the size of a firm plays a significant role in the behavior of a firm and making decisions with regards to opportunities exploitations, core competencies as well as its innovativeness. Hence, a firm can display varying behaviors based on their size. Therefore, this study cannot be an exception; the size was measured in relation to the number of employees.

Furthermore, the firm's ability to learn and appropriately respond to the business situation, virtually depend on the number of years spent in the business operations or the type of industry the firm belongs. Therefore, a firm's behavior and perception of its environment and may vary among newer and older SMEs. Thus, this study has measured the firm age by the number of years that the business has been in existence in its operation.

In another development, the behavior of a firm and its characteristics at the environmental level can be influenced by the industry in which it operates. Hence, firms (SMEs) in the manufacturing industry may depict different attitudes or behaviors when compared with those SMEs in the service industry. Therefore, this research work has measured an enterprise based on the industry it came from by asking the respondents, the main line of venture or business in their firm, be it manufacturing or service industry.

3.9 Pilot Study

A “pilot study” is seen as a methodology in research, that is frequently adopted in social and management sciences, or even in medicine, and it can also be defined as a small scale investigation or examination of a defined subject matter in order to assess that matter, intended, in the first instance, to collect some information that is useful in order to prepare for a wider, more valid study, and, also, to test the fitness or correctness of the protocols to be used in the study and of the procedure for the collection of data (Bigliardi & Bottani, 2014). Similarly, it is conducted in a study by administering a survey questionnaire to a specified amount of prospective respondents (Kumar, Talib & Ramayah, 2013; Sekaran & Bougie, 2013). Thus, it aids in ascertaining whether the items used in the survey questionnaire are properly worded and well comprehended by the prospective respondents (Kumar, Talib & Ramayah, 2013; Sekaran & Bougie, 2013).

Furthermore, it is conducted for the purpose of determining the reliability of the instruments for measuring research. Hence, the most important inter-item test for consistency reliability is that of the coefficient of Cronbach alpha. In this study, 40 questionnaires were self-administered to the respondents (SMEs owners/managers) of the part of the researcher's population of the study, however, only 33 SMEs owner/managers from various SMEs located in the population of the study completed and returned the questionnaires. Accordingly, the reliability test was also conducted during the pilot-test so as to find out, whether the method of the data collection is displaying their consistency, strength, or exactness level. The pilot test was conducted by finding the values of Cronbach Alpha of the entire constructs in the questionnaire using SPSS version 22. Therefore, when the value of the Cronbach Alpha is above 0.70, it is recommended as the variable and also admitted as reliable (Nunnally, 1978). Moreover, according to Hair, *et al.*, (2010) the Cronbach Alpha of 0.60 to less than 0.70 is recommended as moderate and adequate for use in the study.

Table 3.6 depicts a summary of the reliability test results of 33 respondents from the pilot test. The alpha scores, which range from 0.607 to 0.941 for the variables are all within the acceptable limits (Hair *et al.*, 2010). Therefore, from the Table 3.6 below, the results of the study indicated a moderate and acceptable level of Cronbach's Alfa coefficient. Hence, all variables under investigation are above 0.6 variables before (prior) to taking the data instruments (Questionnaires) to the field for full-scale data collection.

Table 3.4

Reliability test results of the survey instruments

Survey Instruments	Constructs	Number of	Cronbach
TQM	Total quality Management	8	0.813
MO	Market Orientation	11	0.915
EO	Entrepreneurial Orientation	9	0.826
AF	Access to Finance	8	0.607
FP	Firm (SMEs) Performance	6	0.941

3.10 Reliability and Validity Test of the Instrument

For the purpose of ensuring measurement items that are good to be adapted, several tests for reliability and validity need to be conducted on the data. Therefore, in order to ensure those adapted items to measure the concepts are correctly capable of measuring the construct and at the same time measuring the concept that is expected to be measured. Reliability analysis and validity test (factor analysis and face validity) were conducted.

Reliability testing was used in order to measure the consistency together with the stability of the proposed adapted measurement in measuring the construct (Hair, Ringle & Sarstedt, 2011). Accordingly, reliability is related to the level at which the items that were adapted in particular in a study has provided the same yields (results) on varying circumstances (Aminu, 2015; Greener, 2008). Likewise, many studies used Cronbach's Alpha for the purpose of determining the internal stability and consistency of their measurements scale they adapted so, this particular study cannot be an exception but instead of the Cronbach's Alpha, Composite Reliability was used in

determining measurement scale consistency internally, like some other research work nowadays.

Validity is concerned with the concrete evidence that is used in the study in relation to the instruments, process or even the technique that are quite appropriate in measuring the concept that the researcher intended to measure (Hair, Ringle & Sarstedt, 2011; Sekaran & Bougie, 2010). Similarly, validity means that the level to which research instruments or even measures were used in a research work, to actually measure what needs to be described or measured (Wygant, Anderson, Sellbom, Rapier, Allgeier & Granacher, 2011). Accordingly, White and McBurney (2012) posited that there are various types of validity such as content or face validity and statistical validity (Greener, 2008). For this study, items that have loadings above 0.40 and face validity were used to determine the validity of the research constructs.

The term face or content validity implies that indicators of a specific construct measure correctly, the construct with the utmost level of adequacy. Thus, in order to ensure that the research constructs meet the face validity requirements, experts in the Universiti Utara Malaysia (UUM) and Bayero University Kano (BUK), Nigeria were consulted on their opinions as to the suitability of the items in measuring the research constructs or otherwise as recommended by Sekaran (2003) and Hair et al. (2010). Based on the general comment and recommendation of experts, the research instrument was improved in terms of formatting, rewordings and language usage for respondents to easily understand and tick their responses.

3.11 Data Collection Procedure

The data for this study was collected from the owners/managers of manufacturing SMEs in Kano, Kaduna and Sokoto states, Nigeria. The data collection was conducted within the period of four (4) months (November 2016 – February 2017). The study employed a self-administered questionnaire method of data collection. The research questionnaire was designed using the UUM logo and questions were gauged using nominal, ordinal and seven Likert scales. In essence, one hundred and thirty-seven (137) questionnaires were distributed to the owners/managers of SMEs in Kano state. Also, one hundred and twenty-five (125) questionnaires were distributed to the owners/managers of SMEs in Kaduna state. Similarly, one hundred and ten (110) questionnaires were distributed to the owners/managers of SMEs in Sokoto state.

So, one-month (30 days) after distributing the questionnaires to the respondents, a total of one hundred and forty (140) questionnaires were retrieved. Additionally, in the second month of the data collection, a sum of seventy-one (71) questionnaires was also collected. Likewise, from the beginning of the third month to the second week of the last month of the data collection period, an additional one hundred and eight (108) questionnaires were collected from the respondents. Therefore, the entire data collection exercise yielded a response rate of three hundred and nineteen (319) questionnaires out of the three hundred and seventy-two (372) distributed questionnaires.

3.12 Data Analysis Techniques

With respect to this study, the researcher went through the questionnaires and separated the usable from the unusable ones. Likewise, with regards to data analysis,

the following measures and preliminary analysis were undertaken: data sorting, coding, and entry; response rate; non-response bias; missing values; and outliers' detection (Pallant, 2011). Therefore, the items measuring the variables were coded in such a way that each coded item represented the variable that has been measured and then was keyed in, into Statistical Package for the Social Science (SPSS version 22) software for subsequent data analysis. However, the data was analyzed using Partial Least Square Structural Equation Modeling (SmartPLS3.0).

3.12.1 Response Rate

With regards to the response rate of the present study, a sum of 372 questionnaires had been distributed to the SMEs' owners/managers located at Kano, Kaduna, and Sokoto states of the Northwest zone of Nigeria. For the purpose of achieving high response rates, a self-administered questionnaire was employed in obtaining data from the respondents. Hence, through personal visits and phone calls to remind the respondents can yield to high response rate (Salim Silva, Smith, & Bammer, 2002; Traina, MacLean, Park, & Kahn, 2005) and text messages were also sent (Sekaran, & Bougie, 2010).

Based on the efforts of the researcher, 319 questionnaires out of the 372 survey distributed questionnaires to the SMEs were successfully filled and returned, thus, yielded a response rate of 86% (Jobber, 1989). However, out of these 319 survey questionnaires received by the researcher, 17 cannot be used for further analysis due to the fact that, a significant part of those questionnaires were not duly completed by the respondents and the remaining 302 served as useable questionnaires that were used for running the analysis. Hence, these 302 questionnaires accounted for 81% of

the valid response rate. According to Sekaran (2003), 30% response rate is sufficient for surveys, thus, based on this suggestion, a valid response rate of 81% is adequately enough to be considered for running the analysis of this research work (see Table 4.1). A similar study in the Nigerian context has also achieved a response rate above 80% (Ringim, 2012).

Table 3.5
Response Rate of the Questionnaires

Response	Frequency/Rate
No. of distributed questionnaires	372
Returned questionnaires	319
Returned and usable questionnaires.	302
Returned and excluded questionnaires.	17
Questionnaires not returned	53
Response rate	86%
Valid response rate	81%

Source: The Researcher

3.12.2 Non-Response Bias

Armstrong and Overton, (1977), opine that the real problem with regards to non-response errors used to manifest from responses to questions, and at the same time, the information given by respondents being different from those who refused to respond. Furthermore, according to Lambert and Harrington (1990), a non-response bias is also regarded as “the differences amid the answers of the non-respondents and respondents”. Similarly, for the purpose of estimating the possibility of the term non-response bias, scholars like Armstrong and Overton (1977) had proposed that, the approach of time-trend extrapolation, which requires making a comparison between

the early and late respondents. Hence, they were of the opinion that, late respondents share the same features as non-respondents.

Therefore, following the approach of Armstrong and Overton (1977), in this very study the respondents were divided into two main groups: those respondents that responded within the period of 30 days known as early respondent and the late respondents i.e., those respondents that responded after 30 days (Vink & Boomsma, 2008). Hence, a total of 140 respondents in the sample; that represents (48.1%) have responded within 30 days, while the majority of the respondents' amounted 151, representing 51.9% have made their response after 30 days as can be seen in Table 4.5.

In particular, the researcher has conducted independent t-test samples in order to find out whether there is any non-response bias possibility on this main study constructs that include: total quality management, market orientation, entrepreneurial orientation, access to finance and SMEs performance. Therefore, Table 4.5 shown below brings the clear picture of the results of this study's independent-samples t-test as obtained.

Table 3.6
Results of None Response Bias Test

Variables	Grouping	N	Mean	SD	Levene's Test for Equality of Variances	
					F	Sig.
Total management	quality Early response	140	4.50	1.29	0.90	0.34
	Late Response	151	4.41	1.39		
Market orientation	Early response	140	3.68	1.11	2.34	0.13
	Late Response	151	3.56	0.99		
Entrepreneurial orientation	Early response	140	4.48	1.29	0.01	0.90
	Late Response	151	4.28	1.29		
Access to finance	Early response	140	4.46	1.41	0.59	0.44
	Late Response	151	4.28	1.45		
SME performance	Early response	140	5.06	1.57	1.52	0.22
	Late Response	151	4.75	1.65		

Source: The Researcher

The above results of the study figured out in Table 3.6 of the t-test's independent-samples disclosed that, significance values of the equal variance with the regards to this study for each and every variable among the five study's constructs were more than the Levene's test' significance level of 0.05 for the purpose of equality of the variance proposed (Field 2009; Pallant, 2010). Thus, this proposes that the equal variances assumptions of the present study amid the early and that of the late respondents have been fulfilled. Therefore, it can be deduced that the non-response bias issue in this study was not something serious to reckon with. Hence, going by the recommendation given by Lindner and Wingenbach's (2002), for the fact that, this survey achieved the valid response rate of 81% so, it can further be explained that; the non-response bias issue is of a lesser concern to fonder with.

3.12.3 Partial Least Squares Structural Equation Model (PLS-SEM)

PLS-SEM is known as a second-generation structural equation modeling technique. According to Hair Jr, Hult, Ringle and Sarstedt (2016), PLS-SEM is used in the analysis of the complex model. Also, in line with the work of Hair, Sarstedt, Ringle, and Mena (2012), PLS-SEM is a modeling technique that is more suitable for a model with a high number of exogenous (latent) variables. In particular, PLS-SEM highly is considered as an improved analysis tool that is used in marketing and other social science research (Sarstedt, Ringle, Smith, Reams & Hair, 2014). Additionally, PLS-SEM has high statistical and estimation power in the cause-and-effect relationship and testing of moderation effect, compared with other covariance-based methods of data analysis (Hair Jr, Sarstedt, Hopkins & Kuppelwieser, 2014). Thus, PLS-SEM is regarded as a possible means of testing the research model (Dijkstra & Henseler, 2015; Hair Jr, Sarstedt, Hopkins & Kuppelwieser, 2014).

Furthermore, PLS-SEM as a statistical tool has been used by many scholars and researchers in various research work in relation to social and management sciences (Sarstedt et al., 2014). Thus, this is due to the fact that, PLS-SEM has the likelihood to assess the latent variable together with their relationship with the outer model (study's item) and test the relationship amid the inner model (Hair *et al.*, 2012). Additionally, PLS-SEM is the model that is more robust with regards to handling a non-normal data due to the fact that, its assumptions are not stagnant (flexible) in relation to normality distribution of variables (Hair *et al.*, 2012; Roldán & Sánchez-Franco, 2012). Therefore, the present study used SmartPLS3.0 for the determination of the

discriminant validity, convergent validity, and reliability test as well as hypotheses testing.

3.13 Chapter Summary

Consequently, this chapter has explained the relationship between the constructs in the study's theoretical framework. The chapter also discussed that a cross-sectional survey as a research design has been adopted together with the population of the entire Kano, Kaduna and Sokoto SMEs of the northwest zone in the Nigerian economy. In addition, the study also adopted stratified random sampling as a method of sampling technique in the selection of the population sample. Thus, the survey research questionnaires were administered on individual bases to the unit of analysis of the study (owner/managers) of the randomly selected SMEs. Eventually, for the purpose of analysis and hypotheses testing, SPSS version 22 was used together with Smart PLS 3.0 in the conduct of the descriptive statistics, factor analysis, reliability, and validity test in this study.

CHAPTER FOUR

RESULTS AND ANALYSIS

4.1 Introduction

The ultimate aim of this particular chapter is to present the analyzed data results of this research work collected from Kano, Kaduna and Sokoto states' respondents of the northwest zone in Nigeria, using Smart PLS modeling. Thus, the issue of data screening as well as preliminary analysis is also discussed. Hence the descriptive statistics results for the entire constructs (total quality management, market orientation, entrepreneurial orientation, access to finance and SMEs' performance), were also reported. Additionally, the main results of this particular study were also presented in two categories. In the first category; the measurement model has been assessed in order to determine each item's reliability, as well as internal consistency reliability, convergent validity and also discriminant validity. The structural model's results are also reported. While, the second category, for example, the issue of path coefficients significance, the R-squared value, the effect size, together with that of the model of predictive relevance are also examined and reported. Lastly, the smart PLS analysis' results that examined the Access to finance moderating effects on TQM, MO, EO and the performance of SMEs relationship on the structural model, are also examined and reported.

4.2 Data Screening and Preliminary Analysis

The study's data has undergone data screening for the purpose of finding data entry errors, to run frequency test for each construct in order to identify and to correct the

missing value possibilities by using SPSS series mean values. Thus, descriptive statistics were used in order to describe and at the same time compare constructs numerically (Saunders, Saunders, Lewis & Thornhill, 2011). Therefore, the present study had used descriptive statistics in order to describe and also to compare the data in relation to frequency distribution, the mean, mode, and median; also, to measure the data variability in relation to the range, standard deviation, and variance. In any multivariate analysis, data screening served as a very important aspect of the survey. This is due to the fact that, the data screening help researchers in identifying any possible violations with regards to the techniques of multivariate data analysis applications as the key assumptions (Hair, Money, Samouel, & Page, 2007). Furthermore, the issue of initial data screening use to help researchers in order to understand better, the usable data collected for purpose of further analysis.

In this study, prior to the commencement of the initial data screening, the entire 302 returned as well as usable survey questionnaires were coded and keyed into the SPSS.v22. Therefore, subsequent to the issues of coding of the survey data and its entry thus, the preliminary aspects of data analyses in this study were performed as follows: (1) the analysis of missing values, (2) outliers' assessment, (3) test for normality, and (4) multicollinearity test (Hair, *et al.*, 2010; Tabachnick & Fidell, 2007).

4.2.1 Missing Value Analysis

In line with the issue of missing value analysis, it had been calculated using SPSS v23. The data set, within which out of the total population of 14,496 data points, only 378 were randomly missed, which accounted for 0.54%. Hence, in specific terms,

total quality management had 14 missing values. So also, market orientation had 21 missing values. Similarly, entrepreneurial orientation had 16 missing values. Likewise, access to finance had 14 missing values. Lastly, SMEs' performance had 13 missing values. Even though there is no specific agreed percentage number of the term missing values in any set of data for the purpose of making the statistical inference that is valid, though generally speaking, research scholars have accepted the 5% or less of missing value rate in a set of data is non-significant (Schafer, 1999; Tabachnick & Fidell, 2007).

Additionally, according to Little and Rubin (1987); Raymond (1986) and also Tabachnick and Fidell (2007), researchers have made a suggestion that, the mean substitution served as the easiest strategy or way when it comes to missing values replacement thus, if the sum of the percentage of the value of missing data amounts to 5% or less. Therefore, according to Tabachnick and Fidell (2007), in a survey randomly missing values used to be replaced by using a mean substitution hence, this particular study cannot be an exception. Table 4.1 had shown the total as well as the percentage of the randomly missing values in this particular study.

Table 4.1
Total and Percentage of Missing Values

Latent variables	Number of missing values
Total quality management	14
Market orientation	21
Entrepreneurial orientation	16
Access to finance	14
SMEs' performance	13
Total missing value	78
Percentage of missing values (78 out of 14,496 data points)	0.54%

Note: Missing values percentage has been obtained simply by dividing the sum of randomly missing values for the whole set of data by the total number of data points multiplied by 100.

4.2.2 Assessment of Outliers

An observation or even parts of observations that appeared to be inconsistent when compared with the rest of the data is referred to as outlier (Barnett & Lewis, 1994). Similarly, an outlier can be described as a response or an observation which poses out from remaining data due to the unusual values of high or low for one of the constructs or many constructs (Hair *et al*, 2010). Accordingly, Verardi and Croux, (2008), opine that the presence of outliers in a regression-based analysis, in the set of data can mislead the researcher, seriously in the coefficients' regression estimates which invariably, can lead to results that are unreliable.

Thus, in order to detect an observation that appears to be not within the value of SPSS labels due to wrong entry of the data; in the first instance, tables of frequency were tabulated for the entire constructs by using the minimum and maximum statistics. Therefore, based the present study's data analysis of the early frequency statistics, it revealed that all values were found within the expected range.

Meanwhile, Tabachnick and Fidell (2007) pinpointed that, the existence of outliers in a set of data is caused by the four following reasons:

- i. Incorrect entry of the data set
- ii. The failure to specify a missing value in the study's data set,
- iii. The outlier is not among the members of the study's population, and
- iv. The outlier is the intended study's population that the construct's distribution in the population under study has more values that are extreme than the normally distributed data.

Additionally, the dataset was examined for the purpose of univariate outlier's elimination, by using the standard values of ± 3.29 ($p < .001$), as the cut-off point based on the recommendation given by Tabachnick and Fidell (2007). Therefore, going by the criterion of Tabachnick and Fidell's (2007) for the purpose of outliers' detection, thus, no case had been identified through the use of the standardized values that have been regarded as potential univariate outliers.

Accordingly, the issue of outliers that are multivariate in nature, they were also detected by means of the Mahalanobis distance (D^2). Thus, the term Mahalanobis distance (D^2) refers to "the case distance from the centroid of the cases that were remaining as such, the centroid served as the point that has been created at the point of intersection of the entire variables' mean" (Tabachnick & Fidell, 2007). Hence, based on the 42 measurement items of the observed latent variables of this research work, the chi-square threshold recommended is 74.75 ($p = 0.001$). The Mahalanobis values

of this very study that exceeded the above threshold were all deleted. As such, following this very criterion, the eleven multivariate outliers (i.e., 4, 11, 76, 80, 83, 146, 224, 227, 231 293 and 299) were detected in the dataset and are subsequently deleted because the multivariate outliers could easily affect the data analysis technique in terms of its accuracy. Hence, the outliers of the study should be removed from the dataset once, their number is big, and it can affect the reliability of the results of the data obtained from the field potentially. Thus, after the removal of eleven (11) multivariate outliers, and the study's final data set was 291 instead of 302.

4.2.3 Normality Test

Normality assessment as opined by Hair *et al.*, (2010), is essential as it serves as one of the basic requirements of multivariate analysis. Accordingly, it is critical in terms of step for ensuring powerful as well as effective inferences that can be drawn from the set of the data.

Therefore, prior researchers such as that of (Cassel, Hackl, & Westlund, 1999; Reinartz, Haenlein, & Henseler, 2009; Wetzels, Odekerken-Schroder, & Van Oppen, 2009) had the premonition that PLS-SEM brings about accurate estimation models in non-normality situations extremely. However, their assumptions turned out to be a vague assertion. Thus, researchers need to perform a data normality test (Hair *et al.*, 2012). In essence, a data that is highly skewed or kurtosis can easily influence the estimates of the bootstrapped standard error to become inflated (Chernick, 2008), thus the statistics of the path coefficients significance can become underestimated eventually (Dijkstra, 1983; Ringle, Sarstedt, & Straub, 2012a).

Furthermore, as against the background, the graphical method had been employed in this particular study in order to check the issue of normality of the researchers' collected data (Tabachnick & Fidell, 2007). Therefore, Field (2009) was of the view that, once the sample of the population under study is large up to the tune of 200 or even above, it is, therefore, more pertinent to look at the population distribution shape in terms of graphical representation rather than, looking at it in terms of the value of its skewness and that of the statistics of its kurtosis. Similarly, Field (2009) also opined that the large population sample reduces (deflates) the standard errors, in which it will raise the skewness value and that of its statistical kurtosis eventually. In essence, this provides a justification for using a graphical method as a rationale of the normality test of the data rather than of its statistical methods.

Therefore, going by the Field's (2009) suggestion, in this study, a histogram and also that of the plots of normal probability were examined so as to make sure that the propositions of the test were fulfilled. See Figure 4.1 which shows that, the collected data of the researcher for this study follows a normal sequence since the entire histogram's bars were closed to the normal curve. As such, Figure 4.1 shows that the assumptions of normality test of this study were satisfied.

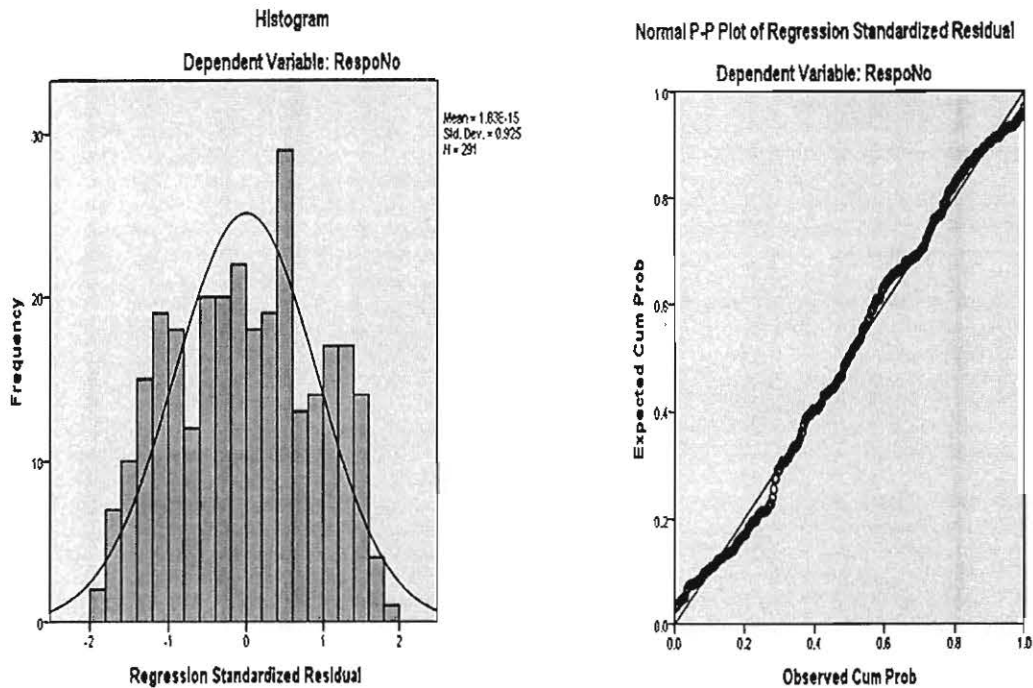


Figure 4.1
Histogram and Normal Probability Plots

4.2.4 Multicollinearity Test

The term multicollinearity means a condition or circumstance in which one or more independent variables happen to be highly and mutually related. Thus, the multicollinearity presence in the midst of the independent variables can distort the regression coefficients estimates substantially and that of their significance tests statistically (Chatterjee & Yilmaz, 1992; Hair, Black, Babin, Anderson, & Tatham, 2006). Thus, specifically collinearity or even multicollinearity serves as a predicament that exists when predictor variables are tremendously correlated to 0.9 and above (Hair et al., 2010). In essence, according to Tabachnick and Fidell (2007), multicollinearity also raises the coefficient standard errors, which render the statistics nonsignificant eventually.

There are two methods of detecting multicollinearity in which they were all used in this study (Chatterjee, & Yilmaz, 1992; Peng & Lai, 2012). In the First instance, the independent variables correlation matrix was examined. Therefore, as opined by Hair *et al.* (2010), ‘a value of 0.90 and above of the coefficient of correlation depicts that multicollinearity exists amid the independent variables’. Hence, Table 4.2 depicts Discriminant Validity - Fornell-Larcker Criterion of all the independent variables.

Table 4.2
Discriminant Validity – Fornell and Larcker Criterion

	TQM	MO	EO	AF	SME Perf.
Total Quality Management	0.860				
Market Orientation	0.481	0.881			
Entrepreneurial Orientation	0.646	0.715	0.885		
Access to Finance	-0.789	-0.616	-0.854	0.899	
SME Performance	0.772	0.597	0.808	-0.841	0.874

Note: “Diagonal elements are the square root of the variance shared between the constructs and their measures (AVE). Off-diagonal elements are the correlations among constructs”.

Table 4.2, has depicted that the correlations amid the independent variables were lower than the proposed researchers’ values of .90 or more threshold sufficiently, which proposes that the independent variables were not dependent and at the same time are not highly correlated.

Therefore, after examining the independent variables’ correlation matrix, the second issue is that of variance inflated factor (VIF), and tolerance values that were also examined to detect the problem of multicollinearity. Thus, Hair, Ringle, and Sarstedt (2011) proposed that the multicollinearity issue is something to reckon with if the

value variance inflated factor (VIF) is greater than 5, and the tolerance value is below .20. As such, Table 4.3 depicts the values of VIF, tolerance values, as well as and that of condition indices of the independent variables.

Table 4.3
Results of Multicollinearity Test

Independent Variables	Collinearity Statistics	
	Tolerance	VIF
Total quality management	.58	1.71
Market orientation	.65	1.54
Entrepreneurial orientation	.45	2.22

The Table 4.3 above shows that there is no multicollinearity existence among this study's exogenous latent constructs as can be sighted all values of the (VIF) were not up to 5, and also the tolerance values are greater than .20, as Hair, Ringle, and Sarstedt (2011) proposed. Therefore, in this study, there is no issue of multicollinearity.

4.3 Common Method Variance Test

The term common method variance (CMV), also referred to as mono-method bias, is regarded as "variance that is to the measurement method rather than to the construct of interest" (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003, p. 879). Thus, researchers have unanimously agreed that the term common method variance is the scholar's major focus that is using surveys which are self-report in nature (Lindell & Whitney, 2001; Spector, 2006). For instance, Conway and Lance (2010) opined that the term "common method bias boosts relationships amid constructs measured by means of self-reports" (p. 325). Accordingly, this study used the self-reported data

from owners/ managers of the Nigerian SMEs, which invariably creates the potential for common method variance (CMV); this depicts that the predictors such as total quality management, market orientation, entrepreneurial orientation and access to finance as well as that of criterion variables i.e., SMEs' performance are collected from the same single raters (managers/owners).

Therefore, this study adopted many procedural remedies so as to reduce the effects of CMV to the barest level (MacKenzie & Podsakoff, 2012; Podsakoff, MacKenzie, & Podsakoff, 2012; Podsakoff & Organ, 1986; Viswanathan & Kayande, 2012). In the first place, is to minimize the apprehension of evaluation, thus the respondents were availed with the items of the questionnaire' answers in which there is no right or wrong accordingly, the respondents were guaranteed that the answers given to the researcher were confidential throughout the research work process. Secondly, in this particular study, as such to minimize the method biases improved scale items were used. Hence, this was achieved by doing away with the semantics and ambiguous words in the survey questionnaire and even when such words or concepts were employed, there were provisions for simple examples. Thus, for the purpose of furthering the improvement of the scale items, the entire questions were written in a simple, specific and precise language.

Furthermore, apart from the above reported sequential corrective measures, the present study also has adopted the test of Harman's single factor as suggested by these scholars Podsakoff and Organ (1986) for common method variance examination. In essence, traditionally in this sequential corrective measure, all

constructs of the area of interest were dependent upon exploratory factor analysis (EFA) and at the same time, issues of unrotated factor remedy's results that are evaluated so as to establish the number of essential factors in order to report the constructs' variance (Podsakoff & Organ, 1986). Thus, the prime proposition of Harman's (1967) test of a single factor is that once the presence of CMV is substantial in amount, then there will be the emergence of either one general factor or a single factor would provide for the substantial amount of the covariance in the independent and dependent variables (Podsakoff & Organ, 1986).

Therefore, based on the suggestion of Podsakoff and Organ (1986), all indicators of this particular survey were dependent upon the principal components factor analysis. As such, the analysis' results of the present study yielded five (5) factors, explaining 100% total variance; with the 47.73% as an explanation the first and also the highest factor of the cumulative variance which is lower than the 50% (Kumar, 2012). In addition, according to Podsakoff, MacKenzie, and Podsakoff, (2012), the outcomes of the present study indicate that most of the covariance in the independent and dependent variables were not accounted by a single factor. Therefore, the result proposes that the issue of common method bias does not serve as a major issue in any way and it is quite unlikely for relationships amid variables measured to become inflated in the present study.

4.4 Demographic Profile of the Respondents

The present section of this chapter describes the issue of the demographic profile with the regards to the entire owners/managers that served as the respondents in this

survey. Thus, the demographic features that are studied in the present survey include factors such as the main line of business, the location of the main business, the age of the enterprise, number of employees working in the enterprise, ownership/ equity type and estimated total assets of the enterprise (see Table 4.4).

Table 4.4
Demographic Characteristics of the Respondents

		Frequency	Percentage
Business line	Textile	88	29.1
	Machinery and Electronics	72	23.8
	Furniture	63	20.9
	Others	79	26.2
Location	Kano	128	42.4
	Kaduna	102	33.8
	Sokoto	72	23.8
Firm age	Less than 5 years	50	16.6
	5-10 years	128	42.4
	11-15 years	54	17.9
	More than 15 years	70	23.1
Firm size	10-49	188	62.3
	50-199	114	37.7
Ownership	Sole proprietorship	144	47.7
	Partnership	115	38.1
	Private limited liability company	43	14.2
Firm asset	Between N5-less than N50 million	178	58.9
	Between N50 to less than N500 million	124	41.1

As depicted in Table 4.4, the majority of the respondents in the sample were from of the main line of the business that amounts to 88 representing (29.1%), they were from the textile industry, 72 of them, representing (23.8%) were from the machinery and

electronics industry, also 63 of them, representing (20.9%) were from the furniture industry, while those remaining 79, representing 26.2% were in the other manufacturing firms. Hence, apart of the respondents that were in the mainline business, owner/ managers as the respondents were also requested to indicate their business locations, in which 128 business firms which represent 42.4% were located in Kano, 102 representing 33.8% in Kaduna and 72 representing 23.8% are based in Sokoto.

While regarding the years of operation of the business firms, 50 of the firms' respondent representing (16.6%), had answered that their business firms had started their operations in less than five years; while, others that amount to 128 representing (42.4%) had been operating in between five to 10 years, so also 54 business firms representing (17.9%) had signified that their business firms had been operating between 11 to 15. At last, only 70 business firms that represent 23.1% are operating their business for over 15 years.

Accordingly, on the issue of the firm's size, regarding the number of their staff strength working in a firm represent the firm's size in the present study. Therefore, respondents were asked to indicate their firm size by selecting one of two available options that are provided in the survey's questionnaire. Thus, the two available options indicate whether the firm is categorized as small 10 to 49; or medium 50 to 199. As such, the descriptive analysis of this study revealed that most of the business firms (SMEs), operating in Nigerian economy are small businesses taken into cognizance with the 62.3% as an average when compared to the 37.7% as remaining

businesses that are operating as medium businesses. Another most important issue is that of the type of ownership which served as another aspect that was also investigated in the present study as part of the questionnaire.

Therefore, in accordance with the categorization as provided in the survey's questionnaire, namely: 1) a sole proprietorship; 2) Partnership and that of; 3) a Private limited liability company, so owner/managers were asked to tick the appropriate option that represents the type of ownership the respondents have in their firms. The results of the analysis depicted that, the majority of SMEs that amounted to 144 represent (47.7%) were sole proprietors, followed by that of partnership businesses amounted to 115 which represents (38.1%) SMEs while the remaining 43 that represent (14.2 %) SMEs were private limited liability companies that are not publicly traded.

Similarly, the total of 302 SMEs' owner/managers answered the question about the SME's estimated total assets. Thus, the results of the analysis revealed that 178 SMEs representing 58.9% of the total assets of the firms fallen between N5 million to less than N50 million while the remaining 124 SMEs fell within the range of total assets between N50 million to less than N500 million. Based on the above explanation provided by the researcher, it can be concluded that those owner/ managers (respondents), had provided enough variance with regards to their backgrounds in the present study.

4.5 Descriptive Analysis of the Latent Constructs

This particular part also is mainly dealing with the issue of descriptive statistics of this study's constructs. The term descriptive statistics can be viewed in the form of mathematical terms of means and that of standard deviations for the study's constructs that were computed. Thus, all the constructs used in this particular survey were measured by using the 7-Likert scale anchored by 1= strongly disagree to 7 = strongly agree. Therefore, the present study's results are presented in Tables 4.7. Hence, for easier result interpretations, seven Likert scales are used in this survey, which was classified into main three different categories, namely, low, moderate and also a high category. Thus, according to Sassenberg, Matschke, and Scholl (2011), the scores that are lower than 2 ($3/3 + \text{least value } 1$) scores are regarded as low; while 3 (highest value $4 - 3/3$), scores are regarded as high, accordingly those scores amid low and high are regarded as moderate.

Table 4.5
Descriptive Statistics of Study Variables (N = 291)

Variables	Mean	Std. Deviation
Total quality management	4.46	1.34
Market orientation	3.62	1.05
Entrepreneurial orientation	4.38	1.29
Access to finance	4.37	1.43
SME performance	4.90	1.62

The table above depicts that the entire constructs' mean ranged amid 3.62 and 4.90. Hence, the mean values, as well as that of the standard deviation value of TQM, were 4.46 and 1.34, respectively. This proposes that owner/managers (respondents) offered to have a moderate level of TQM. Thus, Table 4.6 also points out that the mean value

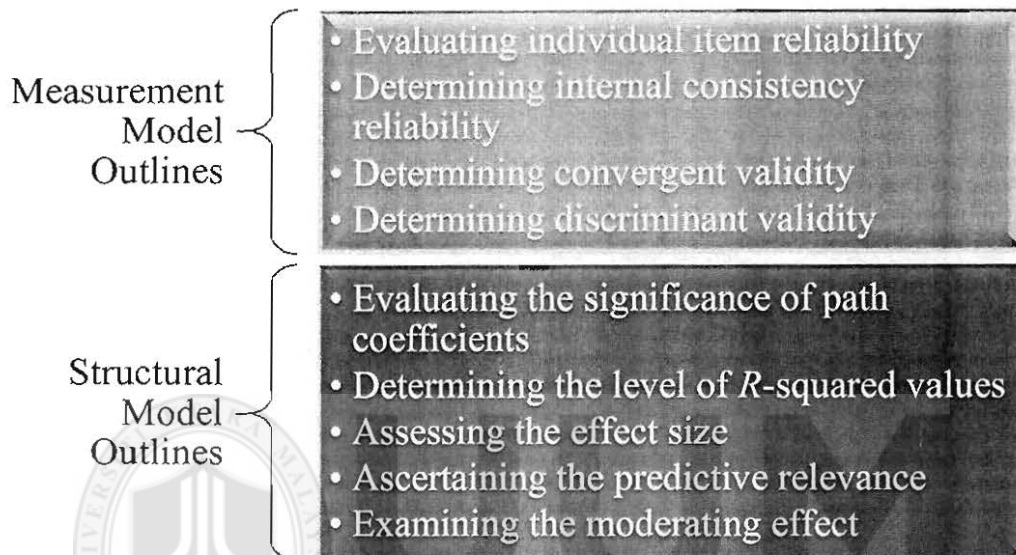
of MO was 3.62, and that of its standard deviation is 1.05, proposing that the respondents' MO value as low. Furthermore, the descriptive statistics results depict that a moderate score for the exogenous variable EO with the 4.38 as mean value and the 1.29 as the value of the Standard deviation. Furthermore, the descriptive statistics' result also depicts a moderate score of the exogenous variable access to finance with mean and standard deviation values of 4.37 and 1.43 respectively. Hence, the result of the criterion variable the SMEs performance had the mean value of 4.90 and standard deviations of 1.62. Therefore, this depicts that the respondents tended to have a high level of SME performance.

4.6 Assessment of PLS-SEM Path Model Results

In this section, based on the study of Henseler and Sarstedt (2013) conducted recently which suggested that index of goodness-of-fit (GoF) does not serve as appropriate on the issue of model validation (Hair, Hult, Ringle, & Sarstedt, 2014). Thus, for example, when it comes to usage of PLS-SEM path models with the data which is simulated in nature thus, in model validation, the term goodness-of-fit index is not sufficient due to the fact that, it cannot separate those models that are valid from those that are not valid (Hair, Ringle, & Sarstedt, 2013).

Furthermore, based on the recent development with regards to the unsuitability of PLS path modelling when it comes to model validation, this study like any other study, has adopted something known as two-step process so as to examine and also to report the PLS-SEM path's results as proposed by Henseler, Ringle and Sinkovics (2009). Therefore, going by these two-step process as adopted in the present study, it consists of the following: Firstly, the measurement model

assessment issue while, the second issue is that of the structural model assessment, (Chatterjee, & Yilmaz, 1992; Hair *et al.*, 2014; Henseler, Ringle & Sinkovics, 2009), as shown in Figure 4.2.



Source: (Henseler *et al.*, 2009)
Figure 4.2

A Two-Step Process of PLS Path Model Assessment

4.7 Assessment of Measurement Model

The term assessment of measurement model is made up of determination of the reliability of the individual item, the reliability of internal consistency, the issue of content validity, as well as convergent validity together with that of discriminant validity (Hair *et al.*, 2014; Hair, Ringle & Sarstedt, 2011).

4.7.1 Individual Item Reliability

With regards to the reliability of individual item issue, each item is assessed via the outer individual item's loadings evaluation of a single measure of the latent variable (Duarte, & Raposo, 2010; Hair *et al.*, 2014; Hulland, 1999). Based on the rule of thumb, each individual item has retention loadings amid .40 and .70 (Hair *et al.*, 2014). Hence it was also revealed that in this survey, out of the 42 individual items, 15 items were deleted because their loadings happen to be below the 0.70 thresholds. As such, only 27 individual construct's items were retained out of the whole model, due to the fact that it had loadings ranging amid 0.786 and 0.951 (see Table 4.8).

4.7.2 Internal Consistency Reliability

The term reliability of internal consistency means the extent to which the entire item loadings on a specific (sub) scale in the survey are measuring the same concept (Bijttebier, Delva, Vanoost, Bobbaers, Lauwers, & Vertommen, 2000). Thus, in the organizational research, the most commonly used internal consistency reliability estimators of an instrument are that of its Cronbach's alpha as well as its composite reliability coefficients (Bacon, Sauer, & Young, 1995; McCrae, Kurtz, Yamagata, & Terracciano, 2011; Peterson & Kim, 2013).

Therefore, in this study, the researcher chooses the coefficient of composite reliability for the purpose of ascertaining the internal consistency reliability of the adopted measures. Accordingly, in this survey, the reliability of a construct was

determined in terms of composite reliability index (Hair Jr, Hult, Ringle, & Sarstedt, 2016; Hair, Ringle & Sarstedt, 2011; Hair *et al.*, 2012; Nunnally & Bernstein, 1994).

Furthermore, the two main rationales for the justification of the used of composite reliability coefficient in the present study are: Firstly, the term composite reliability coefficient pave way a lot in the issue of estimation which is less biased in terms of reliability when compared to the Cronbach's alpha coefficient due to the fact that, the later assumes the whole items contribute in an equal manner to its latent variable without taking into cognizance with the actual contribution of the individual loading of the items (Barclay, Higgins, & Thompson, 1995; Gotz, Liehr-Gobbers, & Krafft, 2010).

Secondly, it is also important to note that, Cronbach's alpha value may over or even underestimate the reliability scale. Thus, composite reliability considers that items have different loadings in which it can be interpreted in the same manner as Cronbach's Alpha. That is to say, whichever coefficient of reliability has been used, it should be a bear in mind that the reliability of internal consistency valued numerically above .70 is adequately regarded in a model as satisfactory, but any value lesser than .60 shows that it lacks reliability. Based on the rule of thumb, Bagozzi and Yi (1988) and Hair Ringle, and Sarstedt (2011) argued that the coefficient of composite reliability of a survey should be nothing less than .70 and above. Thus, this coefficient of .70 and above served as a criterion for internal consistency reliability interpretation purpose by using the coefficient of composite reliability.

Table 4.6
Results of the Measurement model

Constructs	Indicators	Loadings	Cronbach's Alpha	Composite Reliability	AVE
Total Quality Management	TQ01_1	0.874	0.930	0.944	0.739
	TQ02_1	0.852			
	TQ03_1	0.869			
	TQ04_1	0.895			
	TQ05_1	0.878			
	TQ06_1	0.786			
Market Orientation	MO01_1	0.859	0.942	0.954	0.776
	MO02_1	0.865			
	MO03_1	0.868			
	MO04_1	0.926			
	MO05_1	0.921			
	MO06_1	0.843			
Entrepreneurial Orientation	EO01_1	0.911	0.930	0.947	0.783
	EO02_1	0.885			
	EO03_1	0.878			
	EO04_1	0.802			
	EO05_1	0.942			
Access to Finance	AF04_1	0.867	0.920	0.944	0.808
	AF05_1	0.951			
	AF06_1	0.927			
	AF07_1	0.845			
SME Performance	FP01_1	0.852	0.937	0.951	0.763
	FP02_1	0.848			
	FP03_1	0.903			
	FP04_1	0.932			
	FP05_1	0.906			
	FP06_1	0.793			

Accordingly, the above table 4.6 depicts the study's latent constructs' composite reliability coefficients. Hence, as depicted in the Table 4.6 above, the coefficient

of composite reliability of each and every variable ranged from .944 and .954, in which each and every one of them is greater than the least acceptable value of .70, suggested as an adequate reliable value of internal consistency measures used in the present study (Bagozzi & Yi, 1988; Hair, Ringle & Sarstedt, 2011; Sarstedt, Ringle & Hair, 2017).

4.7.3 Convergent Validity

According to Hair *et al.*, (2006), Convergent validity is regarded as the degree to which indicators accurately epitomize the intended variable and truly correlates with other measures of the same variable. Hence, Convergent validity was evaluated by determining the Average Variance Extracted (AVE) of every single variable, as proposed by Fornell and Larcker (1981). Therefore, in order to achieve convergent validity adequately, Chin (1998) came up with some recommendations that, the AVE of every single variable of the study is expected to be .50 or greater. Thus, going by Chin (1998) recommendations, the AVE values in the above table (Table 4.6) ranged amid .739 and .808 as displayed high loadings greater than the .50 on their respective latent variables, which impliedly showing an adequate convergent validity.

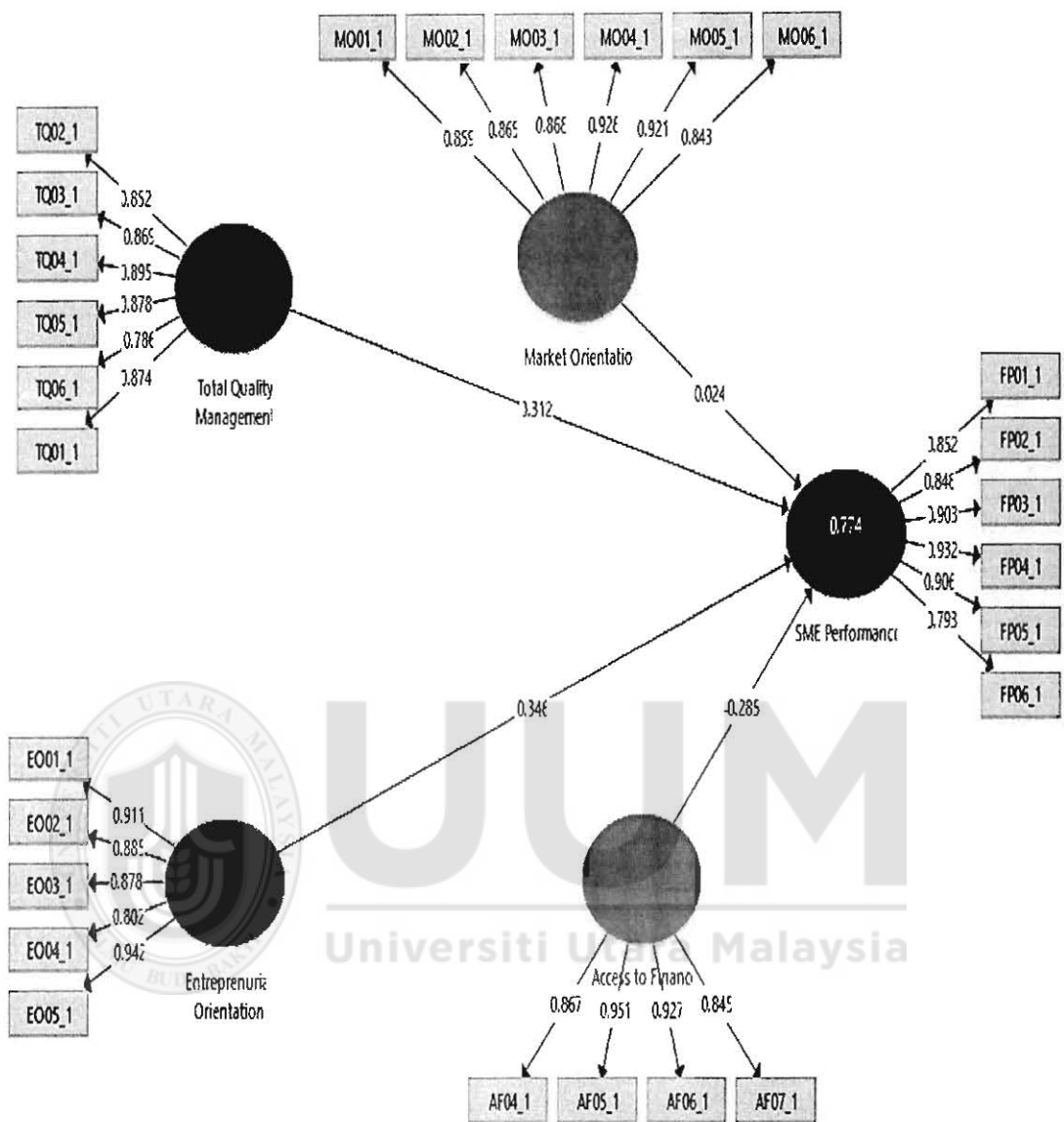


Figure 4.3

Measurement Model

Legend: ● Latent Variable □ Indicators → Inner Model ← Outer Model

4.7.4 Discriminant Validity

According to Duarte and Raposo (2010), the term discriminant validity is regarded as the degree (rate) to which a certain variable differs from other variables. In other words, this was achieved in comparison with the Thus, in the present study, the

discriminant validity was ascertained using AVE, which is in line with the suggestion of Fornell and Larcker in 1981. Hence, this was accomplished in any study by correlations comparison between the latent variables and the square roots of AVE (Fornell & Larcker, 1981). Similarly, discriminant validity was established in accordance with the Chin's (1998) standard by comparing the items loadings with other items that are reflective in the cross-loadings table, as shown in Table 4.7 below.

Table 4.7
Discriminant Validity – Fornell and Larcker Criterion

	TQM	MO	EO	AF	SME Perf
Total Quality Management	0.860				
Market Orientation	0.481	0.881			
Entrepreneurial Orientation	0.646	0.715	0.885		
Access to Finance	-0.789	-0.616	-0.854	0.899	
SME Performance	0.772	0.597	0.808	-0.841	0.874

Note: "Diagonal elements are the square root of the variance shared between the constructs and their measures (AVE). Off-diagonal elements are the correlations among constructs".

In addition, as mentioned earlier, the term discriminant validity can be figured out in comparison with the individual item loadings and that of its cross-loadings (Chin, 1998). Thus, for the purpose of achieving discriminant validity adequately, Chin (1998) proposes that all indicator loadings should be higher than the cross-loadings. Hence, it can be observed in Table 4.8 below has made a comparison between the item loadings of the present study with other reflective items. As such, all cross-loadings were lower than the item loadings numerically, therefore, proposing sufficient discriminant validity for a further analysis in the present study.

Table 4.8
Discriminant Validity – Cross Loadings

	Total Quality Management	Market Orientation	Entrepreneurial Orientation	Access to Finance	SME Performance
TQ01_1	0.874	0.490	0.501	-0.608	0.593
TQ02_1	0.852	0.326	0.359	-0.495	0.532
TQ03_1	0.869	0.322	0.410	-0.616	0.664
TQ04_1	0.895	0.389	0.549	-0.647	0.624
TQ05_1	0.878	0.427	0.646	-0.773	0.709
TQ06_1	0.786	0.491	0.767	-0.837	0.784
MO01_1	0.404	0.859	0.611	-0.531	0.551
MO02_1	0.376	0.865	0.656	-0.567	0.567
MO03_1	0.288	0.868	0.596	-0.448	0.375
MO04_1	0.587	0.926	0.658	-0.634	0.619
MO05_1	0.443	0.921	0.707	-0.589	0.554
MO06_1	0.376	0.843	0.517	-0.423	0.403
EO01_1	0.630	0.692	0.911	-0.749	0.735
EO02_1	0.645	0.639	0.885	-0.788	0.746
EO03_1	0.556	0.611	0.878	-0.744	0.643
EO04_1	0.440	0.513	0.802	-0.696	0.674
EO05_1	0.574	0.697	0.942	-0.797	0.764
AF04_1	-0.750	-0.372	-0.734	0.867	-0.804
AF05_1	-0.790	-0.594	-0.821	0.951	-0.801
AF06_1	-0.619	-0.586	-0.801	0.927	-0.727
AF07_1	-0.664	-0.687	-0.710	0.845	-0.679
FP01_1	0.657	0.532	0.717	-0.712	0.852
FP02_1	0.634	0.464	0.678	-0.707	0.848
FP03_1	0.622	0.511	0.795	-0.811	0.903
FP04_1	0.768	0.567	0.733	-0.824	0.932
FP05_1	0.719	0.568	0.693	-0.725	0.906
FP06_1	0.639	0.479	0.607	-0.612	0.793

4.8 Assessment of Structural Model

Based on the PLS path modelling empirical literature, the issue of structural model was assessed in relation to five basic criteria, viz: algebraic sign, the significance of the structural path coefficients, f^2 values, R^2 values, as well as PLS estimates assessment of the variable level (Q^2 values) (Chin, 1998; Chin, 2010; Roldán & Sánchez-Franco, 2012; Suarez, Calvo-Mora, & Roldán, 2016). Additionally, bootstrapping with 5000 resamples was employed in this survey to generate path

coefficients, standard errors, *t*-values, and *p*-values (Hair, *et al.*, 2014; Hair *et al.*, 2012; Henseler *et al.*, 2009). Thus, the full results of the PLS-SEM that comprised both the direct effect model, as well as the moderated model was presented in figure 4.4 and table 4.9

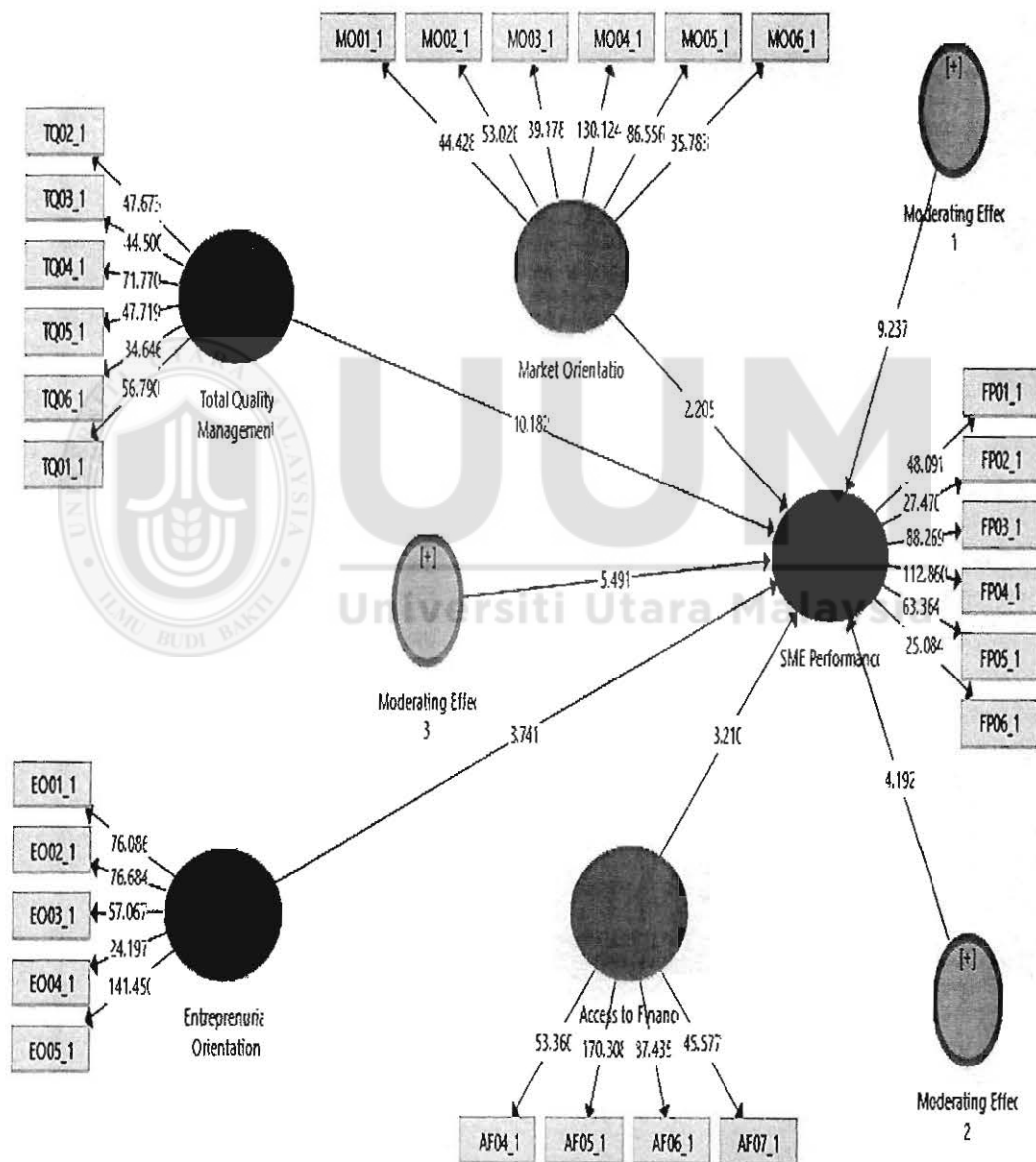


Figure 4.4
Structural Equation Model with Moderator (full model)

4.8.1 Algebraic Signs

As shown in Table 4.9, the path coefficients (algebraic signs) of the present survey were all positive in the direct relationship with the endogenous variable, which is in line with the first three hypotheses of the survey that were formulated. In particular, the positive algebraic signs of the direct effect relationship in the model which proposes that Hypotheses 1-3, the independent variables and dependent variable relationships are positively significant. For instance, there is a significant relationship amid total quality management and SME performance.

Table 4.9
Structural Model Assessment with Moderator (Full Model)

Hypotheses	Relations	Beta	SE	t-value	p-value	Findings
H1	TQM	0.37	0.04	10.18	0.00**	Supported
H2	MO	0.13	0.06	2.21	0.01*	Supported
H3	EO	0.26	0.07	3.74	0.00**	Supported
H4	TQM*AF	0.10	0.01	9.24	0.00**	Supported
H5	MO*AF	0.09	0.02	4.19	0.00**	Supported
H6	EO*AF	-0.13	0.02	5.49	0.00**	Supported

Note: Endogenous variable SME performance; **P< 0.01, *P< 0.05 significant (one-tailed)

4.8.2 Assessment of the Direct Structural Path

Concerning the issue of the structural algebraic signs' significance of the entire three direct hypotheses that were formulated and tested, they were all statistically significant. Hence, it can be observed that in this study, the outset of Hypothesis 1 (one) had forecasted that total quality management is positively related to SMEs performance. Result (Table 4.9, Figure 4.4) indicated a significant positive

relationship amid total quality management and the performance of SMEs ($\beta = 0.37$, $t = 10.18$, $p < 0.00$), thus supporting Hypothesis 1.

Similarly, Hypothesis 2 has also predicted that market orientation is related positively to SMEs performance. Therefore, the Result in the above table (Table 4.9, Figure 4.4) has revealed that positive significant relationship existed between market orientation and the performance of SMEs ($\beta = 0.13$, $t = 2.21$, $p < 0.01$), thus, supporting the Hypothesis 2. Accordingly, in examining the entrepreneurial orientation effect on the SMEs' performance, the result revealed that positive significant relationship existed between entrepreneurial orientation and the performance of SMEs ($\beta = 0.26$, $t = 3.74$, $p < 0.00$), therefore, supporting the Hypothesis 3.

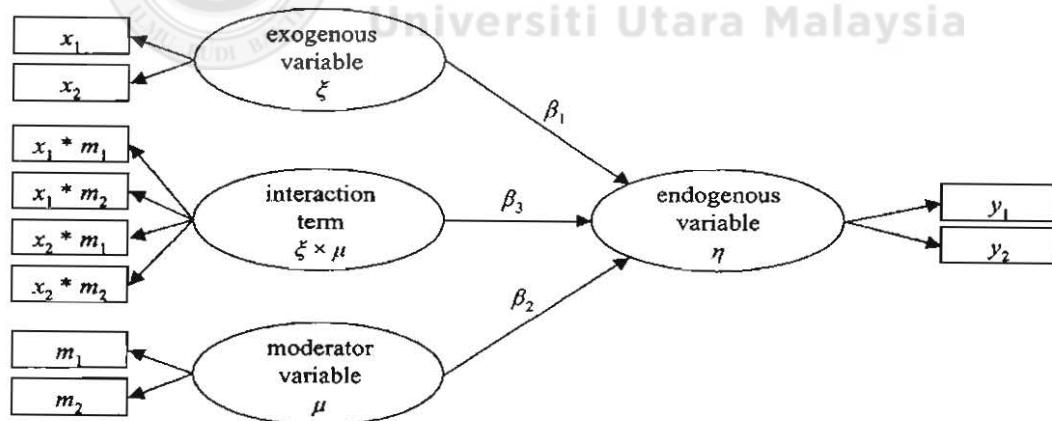


Figure 4.5
Product Indicator Approach
Source: Henseler and Chin (2010).

4.8.3 Assessment of the Moderated Structural Path

Furthermore, for the purpose of testing the effect of moderation of the present study, a product indicator approach using PLS-SEM3 as well as four specification variables (moderation) typologies suggested by Sharma, Durand, and Gur-Arie (1981) were applied so as to ascertain and estimate the strength of the moderating effect of access to finance on the relationship amid TQM, MO, EO and the performance of SMEs (Chin, Marcolin, & Newsted, 2003; Helm, Eggert, & Garnefeld, 2010; Henseler & Chin, 2010; Henseler & Fassott, 2010).

According to Rigdon, Schumacker, and Wothke, (1998), product term approach is considered quite appropriate in the present study due to the fact that, the moderating variable is continuous. Hence, Henseler and Fassott (2010), assert that “given that, the product term approach results are usually equal or higher (more comprehensive) to those of the group comparison approach, thus the scholars recommend always using the product term approach” (p. 721).

Therefore, to apply this very approach of product indicator into the moderating effect of access to finance on the relationship amid TQM, MO, EO and the performance of SMEs testing, the product terms amid the items of the independent variable and the items of the moderator need to be put in place, as a result of this, these product terms would be served as items in the structural model as the interaction term (Kenny & Judd, 1984).

According to Sharma et al. (1981), a moderator is called a specification variable. Hence, a moderating variable can specify both the magnitude as well as the type of relationship between the predicting and criterion variables. Therefore, in assessing the moderating effect of access to finance on the relationship between TQM, MO and EO and performance of SMEs, a two-dimension standard sets by Sharma et al. (1981) was followed. The first dimension tests whether the specification variable relates with the criterion variable. The second dimension tests whether the specification variable interacts with the predictor variable. Based on this standard, as depicted in figure 4.6 below, the following criterion for assessing the effect of a moderating variable (i.e. quadrant 1, 2, 3 and 4) was employed.

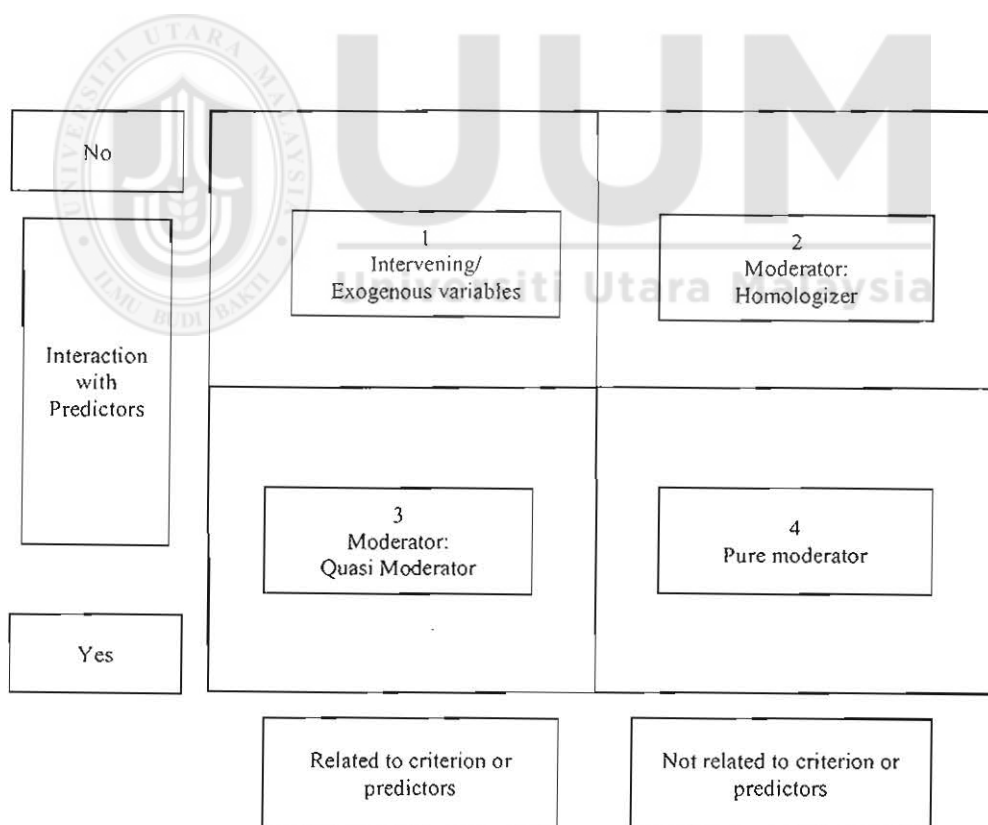


Figure 4.6
Source: Moderator typology of Sharma et al. (1981)

In quadrant 1, a moderator is termed as exogenous or intervening because it only relates to either criterion or predicting variable, however, it has no interaction with the predicting variable. Unlike the other quadrant, in quadrant 2, a moderator is known as homologies, because, though, it has no relationship or interaction with either a criterion or predicting variable, however, it modifies the strength of nexus amid criterion and predicting variables. Nevertheless, in quadrant 3, a specification variable is known as quasi-moderator because in addition to its moderating influence on the form of nexus amid the criterion and predicting variables, it also, have a predicting influence with the criterion variables. Likewise, in quadrant 4, a specification variable is called a pure moderator, because it influences the form of nexus amid criterion and predicting variables.

Based on the argument of Sharma et al. (1981) and the research outcome, the study infers that: (1) access to finance is a moderator, (2) access to finance operates through interaction with predictor variables, and (3) access to finance operates through interaction terms. Therefore, access to finance is a quasi-moderator. Also, in order to figure out the strength of the moderating effects of access to finance, this study applied Cohen's (1988) guidelines for the purpose of determining the effect sizes. Figures 4.6 and table 4.9 depicted the estimates of the moderating effect of access to finance on the relationship amid independents and dependent variable.

Furthermore, it could be reminisced (recalled) that Hypothesis 4 stated that access to finance moderates the relationship amid TQM and the performance of SMEs in the Nigerian economy. In specific, this relationship is stronger for the SMEs that have

higher access to financial resources than those with lower access to finance. As revealed in Table 4.9 that the interaction modes representing total quality management \times Access to finance. ($\beta = 0.10$, $t = 9.24$, $p < 0.000$) was found, depicting support for the Hypothesis 4. Hence, the path coefficients' information was used to plot the moderating effect of access to finance on the relationship amid TQM and the performance of SMEs, going by (following) the procedures recommended by Dawson (2013). Figure 4.6 depicts that the relationship amid TQM and the performance of SMEs is stronger for organizations with high access to finance than it is for business firms with low access to finance.

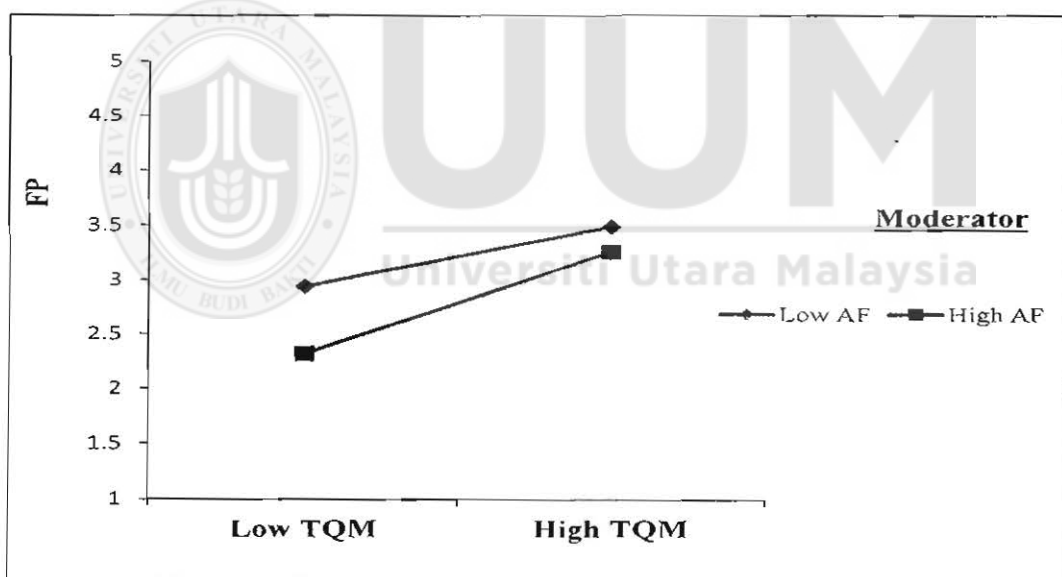


Figure 4.6
Interaction Effect of Total quality management and Access to finance on SMEs (FP) performance

Similarly, it was depicted that the results in the table above (Table 4.9), Figure 4.7 supported Hypothesis 5, which stated that access to finance moderates the relationship between market orientation and SMEs performance. As such, the relationship is stronger (i.e. more positive) for SMEs with high access to finance when compared with those SMEs with lower chances of accessing finances ($\beta = 0.09$, $t = 4.19$, $p < 0.00$). Therefore, the moderating effect of access to finance on the relationship amid market orientation and the performance of SMEs is shown in the figure below (Figure 4.7), which depicts that stronger positive relationship existed amid market orientation and the performance of SMEs for business firms with a high source of access to finance than those with low access to finance.

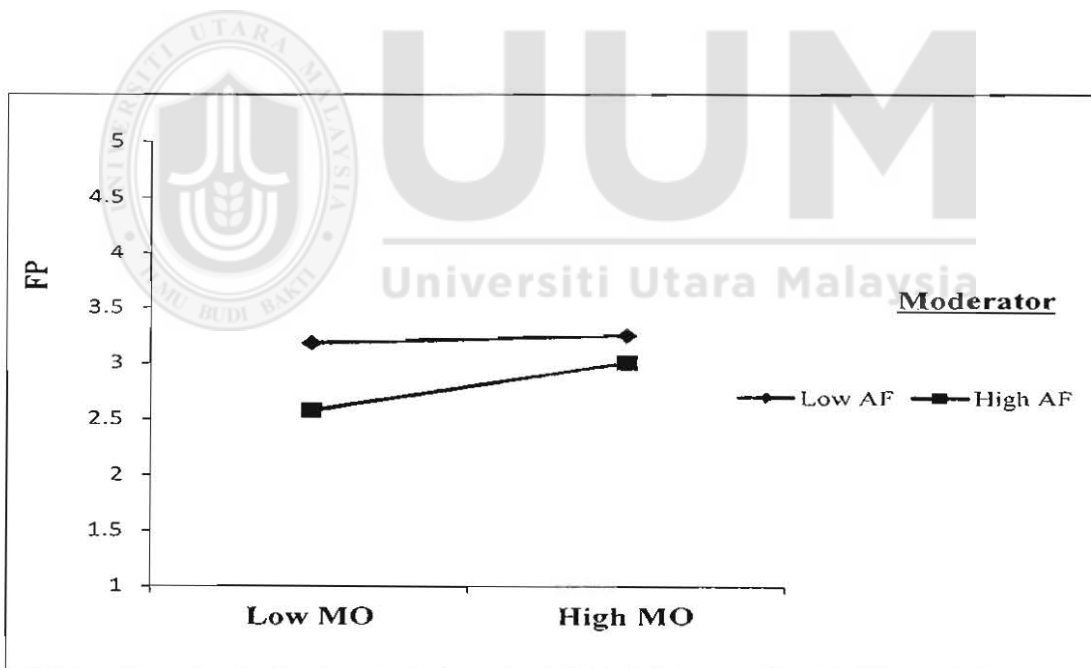


Figure 4.7
Interaction Effect of Market Orientation and Access to Finance on SMEs Performance

Lastly, hypothesis 6 forecasted that access to finance moderates the relationship amid entrepreneurial orientation and the performance of SMEs. In specific, this relationship is quite stronger (i.e. more positive) when business firms with high sources of access to finance than those firms with low access to finance. However, the results of this study depicted that in Figure 4.8 and Table 4.9, this hypothesis is also supported but in a negative manner due to the fact that, the interacting terms representing entrepreneurial orientation and access to finance towards forecasting SME performance was insignificant statistically ($\beta = -0.13$ $t = 5.49$, $p > 0.00$).

Accordingly, another issue that led to the negative contribution between moderating effect of access to finance and entrepreneurial orientation can be associated with the population of the study in which majority of the respondents came from small enterprise as shown table 4.4 (Firms' Assets base), in other words, the statistical figures of the respondents that represented small enterprises can be calculated as such: $11133 \div 12009 = 92.71\%$ and those that of medium enterprises are also calculated in this manner $876 \div 12009 = 7.29\%$.

Therefore, considering those calculated statistical figures, the owner/managers are most likely less proactive or had a high possibility of being inculcated by fear towards taking risks in spite of their financial resources accessibility (SMEDAN, 2013). So, Government at various levels (federal, states and local government) and all other regulatory agencies that are responsible for the enhancement of SMEs' growth and development such as SMEDAN, financial

institutions among others should do everything possible to assist those small enterprises to become medium enterprises as well.

Similarly, taken into consideration with the environmental factors particularly, the external ones such as inflation, economic recession, and high rate of interest charged by the commercial banks are another predicament that contributed immensely to the access to finance negative contribution towards EO on SMEs performance. Therefore, Government and other financial institutions must do everything possible to cushion the inflation rate via price control and impose all necessary policies to the financial institution by fixing the single digit interest rate for loans given to entrepreneurs so as to go about doing their business activities in a more profitable manner. Accordingly, owner/managers should make sure that they pecked all their internal financial resources at their disposal and utilized them efficiently before they start seeking for external debt in which are costlier than those firm's internal financial resources as postulated in the pecking order theory (POT).

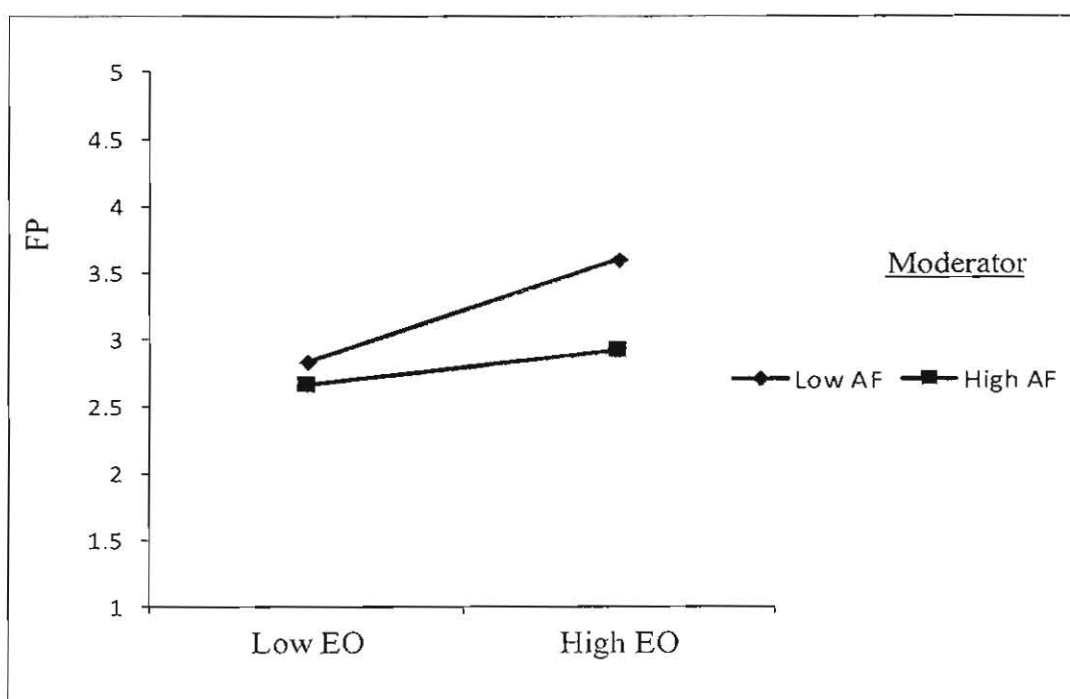


Figure 4.8
Interaction Effect of Entrepreneurial Orientation and Access to finance on SMEs (FP) performance

4.8.4 Assessment of Effect Size (f^2)

The term Effect size (f^2), signifies the relative effect of an individual exogenous latent construct on the endogenous construct(s) by means of changes in the R -squared. Even though, it can be calculated using the analytical tool of Smart PLS 3 automatically (Chin, 1998). According to Chin, (1998), it can be computed mathematically as the increment in R -squared of the construct to which the path is linked, relative to the construct's rate of the unexpanded (unexplained) variance.

According to Cohen (1988) and Henseler and Fassott (2010), the moderating effect sizes (f^2) values of 0.02 can be regarded as weak, 0.15 as moderate while that of above 0.35 may be considered as strong effect size values. However, Chin, Marcolin,

and Newsted (2003) were of the view that, the low effect size does not primarily mean insignificant fundamental moderating effect. Thus, “Even a minor interaction effect can be of meaningful under intense conditions of moderation, thus if the resulting beta variations are very vital, then it is pertinent to take these conditions into consideration” (Chin, Marcolin & Newsted, 2003p. 211). Therefore, the effect size could be extracted by using the following formula (Hair, Hult, *et al.*, 2014; Selya, Rose, Dierker, Hedeker, & Mermelstein, 2012; Wilson, Callaghan, Ringle, & Henseler, 2007):

$$\text{Effect size: } f^2 = \frac{R^2 \text{ included} - R^2 \text{ Excluded}}{1 - R^2 \text{ Included}}$$

Furthermore, Cohen (1988) expressed the values of effect size (f^2) of 0.02, 0.15 and 0.35 as having weak, moderate, and strong effects respectively. Hence, Table 4.11 depicts the respective effect sizes of the latent variables of the structural model.

Table 4.10
Effect Size (f^2)

	SME Performance	f^2
Total Quality Management	0.161	Moderate
Market Orientation	0.001	None
Entrepreneurial Orientation	0.112	Weak
Access to Finance	0.062	Weak

Thus, as shown in above table (Table 4.10), the effect sizes of the latent variables of the study consist of total quality management, market orientation, entrepreneurial orientation and access to finance on SMEs performance having the values of 0.161,

0.001, 0.112, and 0.062, respectively. Consequently, going by stipulated guidelines of Cohen's (1988), the effect sizes of these four exogenous constructs on SMEs performance can be considered as moderate, none, weak and weak respectively.

For the purpose of determining the strength of the moderating effect of access to finance on the relationship amid TQM, MO, EO and SMEs performance Cohen's (1988), effect sizes were calculated. Furthermore, according the moderating effects' strength, it can be assessed by comparison between the value of R-squared (coefficient of determination) of the main effect model with that of the R-squared value of the full model that involves both independent variables and moderating variable (Henseler & Fassott, 2010; Wilden, Gudergan, Nielsen, & Lings, 2013). Therefore, the strength of the moderating effects of this study, like any other social research works, was expressed by using the formula given as follows (Cohen, 1988; Henseler & Fassott, 2010):

$$\text{Effect size: } (f^2) = (4.2) \frac{R^2_{\text{model with moderator}} - R^2_{\text{model without moderator}}}{1 - R^2_{\text{model with moderator}}}$$

Consequently, going by Henseler and Fassott's (2010) and Cohen's (1988) rule of thumb for ascertaining the strength of the moderating effects, Table 4.11 depicts that, the effect size for SMEs performance was 0.32, suggesting that the moderating effect was medium (Wilden *et al.*, 2013). Therefore, the strength's result of the moderating effects of access to finance is presented in the Table 4.11 below.

Table 4.11

The strength of the Moderating Effects Based on Cohen's (1988) and Henseler and Fassot t's (2010) Guidelines

	R Square Included	R Square Excluded	f-squared	Effect size
SMEs	0.83	0.77	0.32	Medium
Performance				

4.8.5 Assessment of Variance Explained in the Endogenous Latent Variables

In this regard, another vital criterion for the purpose of assessing the structural model in PLS-SEM is that of the value of R-squared, alternatively called the coefficient of determination (Hair, Ringle & Sarstedt, 2011; Hair *et al.*, 2012). Thus, the term R-squared value refers to the variation in the proportion of the dependent variable(s) that can be expounded by one or even more than one predictor variable (Elliott & Woodward, 2007; Hair *et al.*, 2010). Although the R^2 value acceptable level usually depends on the context of the research (Hair *et al.*, 2010). Hence, it was opined that the R-squared value of 0.10 is acceptable as its minimum level (Falk & Miller, 1992). In the meantime, Chin (1998) proposes that the R-squared values such as 0.67, 0.33, and 0.19 can be considered in PLS-SEM as substantial, moderate, and weak, respectively. Table 4.12 presents the R-squared values of the two endogenous latent variables.

Table 4.12

Coefficient of Determination

	R Square	R Square Adjusted
SME Performance	0.774	0.771

Meanwhile, as indicated above (Table 4.12), the research model explains 77% with regards to the total variance in SMEs performance. Thus, this proposes that the three independent variables (i.e., total quality management, market orientation and entrepreneurial orientation), together as a whole explain 77% of the SMEs performance. Therefore, based on Falk and Miller's (1992) and that of Chin's (1998) the criteria, the dependent variable depicted the acceptable level of R-squared value, which was considered as substantial.

4.8.6 Assessment of Predictive Relevance

An assessment of predictive relevance serves as another measure when it comes to structural model extractions. Hence, this study like any other social science studies applied the Stone-Geisser's test of predictive relevance research model by means of blindfolding procedures (Geisser, 1974; Stone, 1974). According to Duarte and Raposo, (2010), the predictive relevance test postulated by Stone-Geisser is mostly used as a supplementary rating (assessment) of goodness-of-fit (GoF) in partial least squares structural equation (PLS-SEM) modeling.

Even though the present study used blindfolding to ascertain the predictive relevance of this very research model, it is worthy to note that as stated by Sattler, Völckner, Riediger, and Ringle (2010) "blindfolding procedure is only applied to independent variables that have a reflective measurement model operationalization" (p. 320). Hence, the reflective measurement model "specifies that an unobservable concept causes variation in a set of observable items (indicators) (McMillan & Conner, 2003, p. 1). In specific, a redundancy measure of cross-validated (Q^2) was used for the

purpose of assessing the research model predictive relevance (Chin, 2010; Hair, Ringle, Sarstedt, 2013; Ringle, Sarstedt, & Straub, 2012b; Stone, 1974).

Similarly, Chin, (1998) and Hair *et al.*, (2014) opined that Q^2 is a criterion used in order to measure how well a research model predicts the omitted cases' data. In another development, Henseler et al. (2009) stated that a research model with a Q^2 statistic (s) higher than zero is regarded to have predictive relevance. As can be observed below (Table 4.13), the cross-validation redundancy measure Q^2 for the independent variable is higher than zero numerically, thus, proposing predictive relevance of the research model (Chin, 1998; Henseler, Ringle & Sinkovics, 2009). Hence, a higher positive Q^2 value in a research model proposes a more predictive relevance. Therefore, Table 4.13 below presents the cross-validated redundancy Q^2 test results.

Table 4.13
Predictive Relevance

	SSO	SSE	$Q^2 (=1-SSE/SSO)$
Total Quality Management	1,746.000	1,746.000	
Market Orientation	1,746.000	1,746.000	
Entrepreneurial Orientation	1,455.000	1,455.000	
Access to Finance	1,164.000	1,164.000	
SME Performance	1,746.000	785.268	0.550

4.9 Summary of Findings

Table 4.14 summarizes the results of the entire tested hypotheses of the present study, including the main effect and moderating effects.

Table 4.14

Summary of Hypotheses

	Hypotheses	Result
H1	There is a significant positive relationship between total quality management and SME performance	Supported
H2	There is a significant positive relationship between market orientation and SME performance	Supported
H3	There is a significant positive relationship between entrepreneurial orientation and SME performance	Supported
H4	Access to finance moderate the relationship between total quality management and SME performance	Supported
H5	Access to finance moderate the relationship between market orientation and SME performance	Supported
H6	Access to finance moderate the relationship between entrepreneurial orientation and SMEs performance	Supported

4.10 Chapter Summary

This particular chapter presented the justification for using the PLS-SEM path modeling (Smart PLS 3.0), an analytical software package developed by Ringle, Wende, and Becker, (2014), in order to measure this study's theoretical model. Thus, in line with the significance of path coefficients assessment, the key findings on the latent variables of the study were presented. In general term, self-report techniques had provided considerable support for the moderating effects of access to finance on the relationship amid TQM, MO, EO and the performance of SMEs. In specific, the path coefficients revealed a significant positive relationship amid (1) total quality management and performance of SMEs, (2) market orientation and performance of SMEs, (3) entrepreneurial orientation and performance of SMEs.

Accordingly, with regards to the moderating effect, the results of PLS path coefficients of this study revealed that the formulated hypothesis on the moderating role of access to finance moderated the positive relationship amid (4) total quality management and performance of SMEs, (5) market orientation and SMEs performance. However, the moderating role of access to finance on the association between entrepreneurial orientation and SMEs performance was also supported negatively due to some likely obvious reasons mentioned above. Therefore, the study's findings, implications, limitations, suggestions for further studies and conclusions, will be discussed extensively in the next chapter (Chapter 5).



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CHAPTER FIVE

DISCUSSION, RECOMMENDATIONS, AND CONCLUSIONS

5.1 Introduction

In chapter four of this study, the data analysis result was presented. Therefore, the main objective of this chapter is to discuss the research findings presented in the previous chapter, by linking them to the theoretical perspectives and prior studies related to SME performance. To be precise, this particular chapter is organized into four main sections which are as follows. Section 1 is an introduction, section 2 recapitulation of the findings of the study. Section 3 discusses the findings of the study in the light of underpinning theories and extant researches. Thus, theoretical, methodological and practical implications of the study are discussed in section 4. In Section 5, the limitations of the study and suggestions as well as recommendations for future research directions are made. In the last section, a conclusion is drawn.

5.2 Recapitulation of the Study's Findings

The main objective of this study is to examine the moderating effect of access to finance (AF) on the relationship between total quality management (TQM), market orientation (MO), entrepreneurial orientation (EO) and SMEs performance in Nigeria. Thus, the owner/managers' behavior, attitude and perceptions of the Nigerian SMEs particularly those that are operating their business activities in Kano, Kaduna and Sokoto states of northwestern zone in which, it has the highest number of SMEs among other geo-political zones of the Nigerian economy were the sources of information for the purpose of testing all the hypotheses

stated in the present study which eventually led to the research objectives. Hence, the findings of the present study are discussed based on the overall research objectives which were hypothesized in line with the six research questions that were developed earlier out of the problem statements. Thus, studying these relationships will offer ways or modalities so as to improve SMEs' performance.

Furthermore, the research model is supported by the underpinning theory titled Resource-Based View Theory which postulated that SME's performance is influenced by both SME's tangibles and intangible valuable resources and capabilities which eventually can lead to sustainable economic growth and development together with sustainable competitive advantage. As such, in this study, TQM, MO, and EO are the 3 intangible resources, while Pecking Order Theory was in support of AF as the moderating variable in the present study in which, financial resources served as the tangible resources. In addition, the six hypotheses that were formulated and tested statistically are based on PLS-SEM by using Smart PLS 3.0. Therefore, the empirical results of the present study supported all the 6 hypotheses, in which out of them (6 hypotheses) 3 are direct and the remaining 3 are moderating hypotheses. In contrast, AF was found to moderate EO-SMEs performance relationship, but it contributed negatively due to some obvious reasons stated in the subheading 5.3.6 below.

5.3 Discussions of the Findings

This section reports the entire discussion on the study's findings in relation to the relevant theories and findings of previous research. Thus, the captions (subheadings)

of the present study's discussion section are structured in line with the research questions.

5.3.1 TQM and Performance

TQM refers to holistic management approach aims to bring continuous improvement in entire organizational functions, with the full participation of all employees under the top management leadership of an organization so as to produce products and services according to the needs and demands of customers better than the competitors (Demirbag *et al.*, 2006). Similarly, TQM means any business strategy geared towards satisfying needs and wants of customers via continuous improvements of the organizational various processes and managerial practices (Kumar, Garg & Garg, 2011).

So, taken into cognizance with the above definitions given by various management scholars of the term TQM, it signified that proper implementation of the concept of TQM will really be of crucial importance. This is due to the fact that, those business firm that understood the needs and wants of the customer through the involvement of their employees in strategic decision making and also provides proper coordination among the various functional department and units within the organization will really have an edge over those that do not. Thus, proper implementation of the term TQM as a strategic management construct cannot only foster cooperation and unity between the organizational employees and top management but it will equally serve as a critical strategic management thinking geared towards the achievement of the overall objective of the business firm.

The first research question was whether TQM significantly relates to the performance of SMEs in Nigeria. So, in line with this research question, the first objective of this study was to examine the relationship between TQM and the performance of SMEs in Nigeria. Furthermore, in order to achieve this study's objective, hypothesis one, which predicted a significant relationship between total quality management and performance of small and medium enterprises in Nigeria was tested using the PLS path modeling. As predicted, a significant relationship was established between the two latent variables (total quality management and performance of small and medium enterprises). Thus, Hypothesis 1 is supported. This significant positive relationship posits that TQM is a critical factor in the attainment of SMEs objectives or goals and at the same time to achieve a sustainable competitive performance.

Accordingly, those business firms that properly implemented total quality management practice will have an improved programme that can lead to better quality delivery of materials from their suppliers, and at the same time would have had improved reliable delivery of materials as well as a component from their suppliers as well. More so, those firms that properly implemented TQM practices very well, will surely reduce waste of the firm's resources and at the same time reduce the unnecessary delay of time in their production or rendering services processes. So that business firm will have a better decision making as well as proper coordination in that organizational activities (Valmohammadi, 2011).

Similarly, those business firms that properly implemented TQM, signified that the top management has the willingness in involving their employees in decision-making process particularly in product quality improvement programmes, training as well as involvement in the improvement of teamwork. This is due to the fact that, talents are not only confined to the skilled employees, but many times experience matters a lot. Thus, this top management strategic thinking can motivate those experience workers to put in their best in actualizing the goals of that organization due to that recognition is given to them in which, it will eventually boost the performance of the firm. Subsequently, those firms will really have a reduction in waste or non-value-added activities as well as time delay eradication in manufacturing and designing their products throughout their production processes as well as having all tendencies of developing a very close contact amid manufacturing department and customers resulting from TQM implementation practices.

Despite different context with regards to the cultural backgrounds, business organizational settings, and demographic factors hence, the above mentioned empirical studies had reported similar research findings to this particular study in which total quality management practices had seriously impacted various organizational performance. So, if SMEs properly implement total quality management practices by adopting a series of strategies, such as employee involvement, top management support, customer focus, process management as well as data quality management, they are more likely to achieve firms' performance advantage sustainability by being able to achieve business performance in a superior manner.

Hence, this study is consistent with prior studies that demonstrated the significant importance of TQM implementation as a one of the key determinant of SMEs performance (Abubakar & Mahmood, 2016; Al-Ettayen & Al-Zubi, 2015; Benavides-Velasco, Quintana-Garcia & Marchante-Lara, 2014; Jabeen *et al.*, 2014; Musa & Alawad, 2011; Naser Alolayyan, Anuar Mohd Ali, & Idris, 2011; Powell, 1995). Therefore, based on the underpinning theory of RBV as well as the empirical evidence, this study has succeeded in substantiating the empirical link between total quality management and performance of SMEs in the context of Nigeria. Consequently, the present study has succeeded in the achievement of the first research objective.

5.3.2 MO and Performance

According to Narver and Slater (1990), MO refers to the information gathering derived from customers, internally sharing this information within the organization and on the basis of such information, responds appropriately to the changing needs of the market. Thus, the second research question was whether MO significantly relates to the performance of SMEs in Nigeria? So, in line with this research question, the second objective of this study was to examine the relationship between MO and the performance of SMEs in Nigeria.

Furthermore, in order to achieve this study's objective, hypothesis two, which predicted a significant relationship between market orientation and performance of small and medium enterprises in Nigeria, was tested using the PLS path modeling. As

predicted, a significant relationship was found to exist between the two latent variables (market orientation and performance of small and medium enterprises). Thus, Hypothesis Two is supported. The significant positive relationship depicts that MO is a crucial exogenous construct particularly with those business firms that are market-oriented. Accordingly, MO also helps to improve SME's performance. Business enterprises with a high level of MO can easily boost their performance as result of understanding as well as satisfying the needs and want of their customer and at the same time being thoughtful about the market condition through information gathering on the actions of their competitors.

Moreover, this competence enables business firms to respond to the condition of the market as well as the competitive environment it operates with sufficient information they possess in the market they operate. So, those market-oriented firms seek to create value-added customer products as well as proper understanding of the needs of their customers at the same time served the customer with the right product they needed than those that are not market-oriented. This management strategy cannot only satisfy those customers alone, but it also has a multiplier effect particularly when those market-oriented business firms strived in the provision of customers' satisfaction as well as rendering after sales services. In essence, those market-oriented SMEs can easily achieve their objectives or goals and at the same time boost their intended performance than those SMEs that are not market-oriented.

Additionally, those firms that are market-oriented are found to be very good in the Salespersons information sharing about their competitors, and at the same time

responds quickly to the actions of their competitors better than those business firms that are not market-oriented. Similarly, those SMEs that are market-oriented respond quickly to the competitors' actions better than those SMEs that are not market-oriented. Therefore, these market-oriented strategic thinking can easily motivate their real customers not to only have a repeated purchase but also to even attract other potential customers to purchase the firms' product at first instance and even to continue patronizing that firm's products. Therefore, those market-oriented firms' can easily increase the turnover of their firms, that will eventually enhance the performance of that firm due to that after sales service strategy.

In essence, this study supported the significant importance of MO strategy as one of the key factors of SMEs performance based on the data collected from owner/managers of SMEs in Nigeria and vice-versa. Therefore, this finding was quite in line and confirms many previous empirical findings of (Deniz Eris, Ozmen & Neczan 2012; Hussain, Ismail and Akhtar (2015b), Narver & Slater 1990; Oyedijo, Idris & Aliu 2012; Shah & Dubey, 2013).

Furthermore, MO refers customer-focused strategic orientation construct that enables firms to understand the market needs and also develop appropriate strategies in order to fulfill customer's needs and wants so as to achieve firm success in the long run (Liu, Luo, & Shi, 2002). Therefore, it can be concluded that market orientation is an important determinant factor that enhances the Nigerian SMEs performance. It is therefore proposed that owners/managers of the market-oriented firms can ensure the most profitable survival and growth of their firm by exploring as well as venturing

into new markets by starting up with new product development ahead of their competitors than those that are not market-oriented firms (Narver & Slater, 1990). Consequently, this study's findings certainly signify that market orientation helps in achieving higher performance of SMEs.

Eventually, the result of this study depicts that SMEs' ability to attract, maintain and retain more customers so as to deal with competition, lead to improvements in their financial resource access, and eventually leads to higher performance achievement. Thus, this seems to signify that the performance of a firm depends on MO particularly, when SMEs have access to finance. The finding agrees with the past research (Boso, Story, & Cadogan, 2013) which shows that MO is related to firm performance through some mediating variables of social and business network ties. Regarding the current study, this result supports the RBV that suggests firm performance is achieved as a result of matching valuable tangible and intangible resources particularly when these resources are valuable, rare, inimitable and also non-substitutable. To this end, the results suggest that a firm's MO is an ingredient for accessibility of finance, which would provide the firm with capabilities to achieve superior performance.

5.3.3 EO and Performance

As stated earlier, the third objective of this study was to examine the relationship between EO and the performance of SMEs in Nigeria. Hence, in order to achieve the third objective, and its hypothesis, which had predicted that a significant relationship between EO and SMEs was tested based on results of PLS path modeling. Thus, as

predicted before, the present study reported that EO had positively influenced the performance of SMEs. Therefore, Hypothesis three is supported. Hence, the significant positive relationship depicts that those business firms with the high level of EO tend to be very active in producing many new products or rendering very good services to the boosts the performance of SMEs better than those SMEs' that are not EO oriented. Alternatively, this depicts that the higher the EO level, the higher the impact of the Nigerian SMEs performance and vice versa. So, this study' findings are in accordance with the propositions put forward by RBV theory which postulated that, a business firm can achieve a sustainable viable advantage as well as superior overall business firm performance particularly by formulating and at the same time practicing business strategy that generates value increment for the enterprise relative to those that are their real competitors; then sustainability can easily say to be achieved by those enterprises if the value increment remains once competitors have stayed away from imitating the other firms viable performance advantage (Barney, 1991, 2000).

Thus, the significant positive relationship between entrepreneurial orientation and SME performance of the present study is consistent with several previous empirical studies, such as that of Al-Swidi and Mahmood (2012); Arief, Thoyib, Sudiro and Rohman (2013); Bakar, & Mahmood, (2014); Jalali, Jaafar, and Ramayah (2014); Kantur (2016); Lechner and Gudmundsson (2014); Madhoushi, Sadati, Delavari, Mehdivand and Mihandost, (2011); Real, Roldán, and Leal (2014); Tang and Tang (2012); Wijetunge, and Pushpakumari, (2014). Thus, according to Miller (1983), EO requires a business firm to engage themselves in undertaking risky business ventures,

product-market innovation, and is first to come up with “proactive” innovations, beating competitors to the punch”.

Therefore, the study’ result was also in concord with the resource-based theory proposition which states that a firm can achieve sustained competitive advantage as well as a superior performance by formulating and implementing a business strategy that brings about increased in firm’s value when compared with that of its competitors; then sustainability is said to be achieved once the increased value of the firm’ rare resources remain, when its competitors stop trying to imitate the non-substitutable organisational resources for gaining the viable performance advantage (Barney, 1991, 2000; Barney & Clark, 2007; Wernerfelt, 1984).

Furthermore, based on study’s underpinning theory as well as previous empirical evidences, it could be concluded that EO could bring about the positive effect to the performance of SMEs, which include better return on sales, return on equity, return on assets, financial profitability and at the same time higher return on investments than that of their competitors with regards to their increase in market share and increase in the competitors’ sale volume among others.

Consequently, the present study has succeeded in providing an answer to the third research objective. Hence, it is obvious that EO as a strategic orientation construct has a significant positive influence on the performance of the Nigerian SMEs, particularly those that are operating in Kaduna, Kano, and Sokoto located in the north-west geopolitical zone of Nigeria. Accordingly, this study also highlights the

relevance of the owner/managers of the Nigerian SMEs to possess innovation, risk-taking and also be proactive in order to realize effective firm performance particularly, in the Nigerian SMEs. Therefore, the study's findings reveal that entrepreneurs that are more innovative, proactive and also take risk are more likely to perform better than others.

5.3.4 Access to Finance as a Moderator between Total Quality Management and SME Performance

The fourth research objective of the present study is to ascertain (determine) whether Access to finance moderates the relationship between total quality management and the performance of the Nigerian SMEs. Thus, the objective leads to the testing of the fourth hypothesis, which proposes that access to finance moderates the relationship between total quality management and the performance of the Nigerian SMEs. Hence, the objective is to find out whether Access to the financial resource can strengthen the relationship between total quality management and SMEs' performance in Nigeria. Accordingly, in order to achieve the study's objective and to answer the study's research questions, the fourth hypothesis was formulated and tested. Hence, in a specific term, the relationship is stronger particularly for SMEs with a high level of Access to financial resources than those with low access to finance.

Thus, the result of moderation test for access to finance on the relationship between total quality management and the performance of the Nigerian SMEs indicated that access to finance moderates the relationship between total quality management and

the performance of the Nigerian SMEs. Therefore, this shows that hypothesis four is accepted. Thus, the finding of this study is in line with the proponents of RBV that, the organizational tangible and intangible resources are valuable, rare, inimitable and also non-substitutable. (Barney, 1991; Barney, 2001; Barney, Ketchen & Wright, 2011; Das & Teng, 2000).

Accordingly, the result of this study revealed that the Nigerian SMEs particularly those in the Northwest had utilized their financial resources very well in order of preference by start pecking all their internally generated funds in financing their businesses. This proper utilization of their internal financial resources which does not attract a cost of capital in form of interest rate gave the SMEs more focus and opportunity to the proper implementation of TQM strategic management thinking practically. So, this prioritization of utilization of the Kano, Kaduna and Sokoto states' SMEs internal financial resources in financing their business such as : the entrepreneurs family and friends' finances; lease financing; credit facilities enjoyed from their suppliers; and running away from accessing external finances due to, not been satisfied with high collateral securities requirements imposed before those funds are accessed are some of the strategies those firms applied in which it is in line with the some of the proponents of POT.

Therefore, those firms that really strategized well in financing their business operations with the family and friends' finances, lease financing, credit facilities enjoyed from their suppliers; running away from accessing external finances for not been satisfied with high collateral securities requirements imposed before those funds

are accessed are more likely to have realistic practical TQM implementations due to the: improving the quality as well as reliability delivery of their materials and components; waste reduction or non-value added production activities; time delay reduction in manufacturing and designing of their products; involvement of all and sundry employees in their quality improvement programmes, training, and teamwork; involvement of all the functional departments of that organisation in strategy formulation of their firm in achieving their business objectives than those that do not.

5.3 5 Access to Finance as a Moderator between Market Orientation and SME

Performance

The fifth research objective of the present study is to determine whether access to finance moderates the relationship between market orientation the performance of the Nigerian SMEs. Thus, the objective leads to the testing of the fifth hypothesis, which proposes that access to finance moderates the relationship between market orientation and the performance of the Nigerian SMEs. Hence, the objective is to find out whether access to the financial resource can strengthen the relationship between market orientation and SMEs' performance in Nigeria. Accordingly, in order to achieve the study's objective and to answer the study's research questions, the fifth hypothesis was formulated and tested. Hence, in a specific term, the relationship is stronger particularly for SMEs with a high level of Access to finance than those with low access to financial resources.

Thus, the result of moderation test for access to finance on the relationship between market orientation and the performance of the Nigerian SMEs indicated that access to

finance moderates the relationship between market orientation and the performance of the Nigerian SMEs. Therefore, this shows that hypothesis five is accepted. Thus, the marketing resources, activities, as well as capabilities levels that are possessed by SMEs, have a positive relationship with their ability to get more cash flow, which eventually, influences the firms' access to getting financing in several ways. Hence, the findings of this study provide more evidence that those firms that are market-oriented can satisfy the customers' preferences, needs and wants better, which in turn, boost their internal sources of finances and likely to attract more investment in the firms.

Furthermore, the findings of this study relate well with the prior studies' viewpoints which argued that lack of access to cost-effective finances of SMEs are more or less related to the SMEs' peculiar features, business strategies as well as business operations (Kyophilavong, 2011; Mazanai & Fatoki, 2012; Steinerowska-streb & Steiner, 2014). Accordingly, this study is also in accordance with the study' finding of Turyahebwa, Sunday, and Ssekajugo (2013), in which their result depicts that, those SMEs that implement business strategic oriented activities will make more profit that may eventually yield high possibilities of retained earnings. Similarly, taken into cognizance with the RBV notion, the present study clarifies that, those SMEs that are market-oriented in nature are more likely as well as capable in terms of generating more cash flows and becoming more profitable due to the firm's ability to organize their resources in an efficient manner so as to satisfy their customer.

Furthermore, the result of this study revealed that the Nigerian SMEs particularly those in the Northwest had utilized their financial resources very well in order of preference by start pecking all their internally generated funds in financing their businesses. This proper utilization of their internal financial resources which does not attract a cost of capital in form of interest rate gave the SMEs more focus and opportunity of being market-oriented firm. So, this prioritization of utilization of the Kano, Kaduna and Sokoto states' SMEs internal financial resources in financing their business such as : the entrepreneurs family and friends' finances; lease financing; credit facilities enjoyed from their suppliers; and running away from accessing external finances due to, not been satisfied with high collateral securities requirements imposed before those funds are accessed are some of the strategies those firms applied in which it is in line with the some of the proponents of POT.

Therefore, those firms that really strategized well in financing their business operations with the family and friends' finances, lease financing, credit facilities enjoyed from their suppliers; running away from accessing external finances for not been satisfied with high collateral securities requirements imposed before those funds are accessed are more likely to market-oriented driven ones due to the: seek to create value-added customer product (s); understanding customer needs and wants; striving to provide customer satisfaction; provision of after-sales services for customer satisfaction; information sharing by the Salespersons about their firm's competitors; quick response to the actions of the competitors based on the privileged information shared to the firm's management by their Salespersons in achieving their business objectives than those that do not.

To conclude this issue, therefore, it indicates that, the more SMEs focused on MO, the more their sources of internal financial resources will be augmented and also the more likely to access external financial resources increment. Therefore, the present study shows that the owner/manager of SME should adopt more of MO culture because it can easily increase their financial resources. In other words, the Nigerian' SMEs should imbibe the culture MO so as to minimize the level of their financial resources constraints that are militating them.

5.3.6 Access to Finance as a Moderator between Entrepreneurial Orientation and SME Performance

The sixth research objective of the present study is to determine whether access to finance moderates the relationship between entrepreneurial orientation the performance of the Nigerian SMEs. Thus, the objective leads to the testing of hypothesis number six, which proposes that access to finance moderates the relationship between entrepreneurial orientation and the performance of the Nigerian SMEs. Hence, the objective is to find out whether access to the financial resource can strengthen the relationship between entrepreneurial orientation and SMEs' performance in Nigeria. Accordingly, in order to achieve the study's objective and to answer the study's research questions, the sixth hypothesis was formulated and tested. Henceforth, in a specific term, the relationship is stronger particularly for SMEs with a high level of Access to finance than those with low access to financial resources.

Furthermore, the result of moderation test for access to finance on the relationship between entrepreneurial orientation and the performance of the Nigerian SMEs indicated that access to finance moderates the relationship between entrepreneurial orientation and the performance of the Nigerian SMEs. Therefore, this shows that hypothesis six is also accepted. Even though, the finding of this study in relation to hypothesis six is significant. However, the beta value is negative, thus unexpected and suggests that owner/managers' access to financial resources does not bring about the positive effect on the entrepreneurial orientation of the SMEs in Nigeria. This is due to the fact that, business does not operate in a vacuum, but it operates within an environment.

So, due to the contextual factors with regards to the issue of the environment particularly, the external environmental factors such as inflation rate, economic recession, and high rate of interest charged by the commercial banks are another predicament that contributed immensely to the access to finance negative contribution towards EO on SMEs performance. Therefore, Government and other financial institutions must do everything possible to cushion the effect of inflation rate by means of price control as well as imposing all necessary guidelines to the financial institution by fixing the interest rate at single digit for loans in disbursing loans to entrepreneurs so as to go encourage the entrepreneurs to secure a cost-effective financial resources in going about their business activities in a more profitable manner. As such, owner/managers should make sure that they pecked in, all their internal financial resources at their disposal in the first instance and utilized them efficiently before they start seeking for external debt financings, in which are

costlier than those of firm's internal financial resources as advocated by the pecking order theory (POT).

Accordingly, other issues that impacted negatively between EO and AF in the Nigerian economy is that of the fall in the price of crude oil globally that had led to the unfriendly business environment in spite of the higher access of financial resources obtained by the entrepreneurs of Kaduna, Kano and Sokoto states in the North-west geopolitical zone of Nigeria due to the removal of subsidy and various development levies imposed by the Nigerian government to boost their internal revenues. Similarly, another plausible reason might be associated with the some or all of these rationales such as: Firstly, the philosophy of entrepreneur of the developing nation particularly that of Nigeria is quite dissimilar from that of industrialized nations in spite of the high degree of financial resource accesses. Thus, in Nigerian entrepreneurial philosophy, risk-taking as one of the important dimensions of EO is almost insignificant.

Nevertheless, SMEs owner/managers are proactive in their business dealings (approaches), yet they evade taking any kind of risk that is associated with their business operations. Secondly, another important reason as far as the Nigerian entrepreneurs are a concern is not limited to taking any kind of business risk but the majority of the SMEs are being operated at a family level since most of their internal sources of finances came from the family and friends. So, this sets constrain on the owner/ managers that operate the business under their families' supervision. Likewise, risk-taking leads to competitive aggressiveness manner, nonetheless as

these firms evade taking any kind of risk then the outcome of the study also displays a negative significant relationship between EO and SMEs performance, despite the high level of access to finance. Additionally, the equivalent is true in relation to the innovative factor. Thus, the term innovation emanates when any firm invests on risky ventures or projects that would generate a high rate of return, as these SMEs owner/managers display risk-averse behavior so the innovativeness conduct is likewise negligible in these business firms.

Thus, the level of access to finance of the owner/ managers of the Nigerian SMEs has contributed negatively to their relationship with the suppliers, partner or even their relatives. This is for the fact that, most of the SMEs in Kaduna, Kano, and Sokoto states are owned and controlled by the Hausa and Fulani ethnic groups mostly and their communities are some of the most affected people of subsidy removal being the most densely populated zone of the Nigerian economy. In essence, a possible reason for this very result finding is that there will be a tendency that, the more firms particularly SMEs perceived a very high level of environmental risk, it will invariably be less for the firms to engage themselves in a more profitable business venture. In other words, once there is a high level of EO, it means that the level of risk in that particular business will be high also and it will require a huge amount of finances instead of generating more of those financial resources.

Another plausible reason that led to this negative effect may likely have to do with the too much emphasis on EO undertakings, as a singular retort to the competitive aggressiveness of the market, that may likely lead to low profit and retained earnings

of the firm (Baker & Sinkula, 2009; Morgan, Anokhin, Kretinin, & Frishammar, 2015). In other words, once the level of EO is high then there is every tendency for the needs of a substantial amount of financial capital rather than the financial resources generation. Thus, in line with the Tang, Tang, Marino, Zhang, and Li, (2008); Engelen, Kaulfersch, and Schmidt (2016), argument, it was observed that too much prominence on EO largely confines or decreases a firm's capability to attain its objectives for the reason that, it can divert the attention of the owner/managers from other business productive undertakings that can nurture entrepreneurial spirit in the business organisation. However, other explanations that proved to be possible such as EO contextual nature as a result of cultural factors, environmental differences and institutional factors and also the financial capacity of business firms are likely to be disproportionately distributed among the SMEs, yet (Coulthard, 2007; Grande, Madsen & Borch, 2011; Kraus, Rigtering, Hughes, & Hosman, 2012; Rauch *et al.*, 2009).

Hence, in line with the Hakala and Kohtamaki (2011) conclusion, the present study proposes that, the owner/ managers of the Nigerian SMEs should focus on the aspects of innovativeness, risk-taking, and pro-activeness of EO dimensions as a strategic orientation construct, but it should not be to the extreme level because those three dimensions of EO, require a huge amount of financial resources. Therefore, this study is in contrast with the previous empirical findings of Frank, Kessler, and Fink (2010); Idahosa, (2014); Wiklund and Shepherd (2005) and those of the proponents of RBV (Barney, 1991; Barney, 2001; Barney, Ketchen & Wright, 2011; Das & Teng, 2000). Accordingly, the viewpoint of Acharya, Almeida, and Campello (2013) can be

another strong plausible reason that “once the level of leverage is high, then it can lead to underperformance of the SMEs’ business activities”.

5.4 Contributions provided by the Study

Previous research has discovered that total quality management implementation, market orientation, and entrepreneurial orientation, significantly played a vital role in predicting the performance of SMEs (e.g., Covin & Slevin, 1989; Kober, Subraamanniam, & Watson, 2012; Wiklund & Shepherd, 2005). Thus, this study had extended the findings of the previous studies by showing how access to finance can equally contribute on the effect of total quality management, market orientation, and entrepreneurial orientation, on SME performance. As such, the results of the present study have many impacts based on the contributions given to the current body of knowledge theoretically, practically, and also methodologically. The following sub-sections will provide an elaboration with the regards to some of these theoretical, practical, and methodological contributions of this study.

5.4.1 Theoretical Contributions

This study has drawn upon numerous theoretical contributions so as to test the proposition of the hypothesized structural model, including the resource-based view theory (Barney, 1991, 2000) and pecking order theory which was discovered by a scholar known as Donaldson, in 1961 (King’ola, 2017). Although, Barney (1991, 2000), theorises that sustained competitive advantage together with the and superior performance can be achieved by a business firm through strategy formulation and implementation that creates an increase in firm’s value relative to those of its

competitors; hence, according to Barney and Clark, (2007), the sustainability issue can be attained if the business firms' rivals (competitors), have discontinued try to imitate the other business firms' competitive advantage, that will be the only state in which the value of the firms increased. Whereas the pecking order theory (Donaldson, 1961; King'ola, 2017) suggests that the owner/managers favour financing their firm's business operations first of all from their retained earnings, then with the instrumental debt, then followed convertible loans as a hybrid forms of finance and lastly to be financed by means of equity; with either agency costs, bankruptcy costs, and other asymmetries' information that do play a little role in influencing the policy of the firm's capital structure.

Thus, this particular study has provided an added theoretical evidence in the RBT's domain (Barney, 1991, 2000), and that of the pecking order theory (Donaldson, 1961), by extending the theoretical model beyond the effect of the direct relationship between TQM, MO, EO and the performance of SMEs. In specific, the present study has examined the moderating effect of access to finance on the relationship between total quality management, market orientation, entrepreneurial orientation and SME performance. Accordingly, the extant literature or empirical studies with the regards to this relationship between TQM, MO, EO, and SME performance have reported mixed findings (e.g., Covin & Slevin, 1989; Kober, Subraamanniam, & Watson, 2012; Shehu & Mahmood, 2014a; Wiklund & Shepherd, 2005). Another vital contribution of the present study is with regards to the context. Hence, scholars such as; Wales, Gupta, and Mousa (2011), argued that majority of the empirical studies on

strategic orientation were undertaken in the US. Thus, proposed the need for conducting studies in another part of the globe including countries of Africa.

Furthermore, Jaafreh and Al- Abdallat (2012) advocate for more quality of management practice to the firm's performance studies relationship that will cater across various sectors of an economy. Thus, based on the propositions as well as inconclusive research findings, the present study contributed immensely by extending the literatures as a body of knowledge by including moderating variable to the model which other empirical studies did not consider (Al – Ettayen, & Al –Zubi, 2015; Ogbonna & Ogwo, 2013; Shehu & Mahmood, 2014a). Therefore, the present study also proved that access to finance moderates the relationship amid TQM, MO, EO and firm performance of the SMEs in Nigeria based on study conducted by Aliyu (2016), in which the recommendation of the study suggested the need for undertaking another empirical study by incorporation of access to finance as a moderator between strategic orientation constructs particularly TQM and firms' performance in Nigeria.

Accordingly, Herath and Mahmood (2013) recommendations which suggested an inclusion of moderating variable in undertaking other studies related to strategic orientation (EO, MO, and LO), with the regards to performance relationship. Likewise, this particular study is also in line suggestions given by Wiklund, and Shepherd, (2005), which recommended that more empirical research work needs to be undertaken in models comprising EO and other constructs with access to financial resources as a moderator on SMEs performance relationships.

5.4.2 Practical Contributions

Based on the practical viewpoint, the study's findings have provided very vital understandings on how total quality management, market orientation, entrepreneurial orientation, and access to finance could boost the entire performance of the Nigerian SMEs. Then, the findings of the present study may serve as a blueprint for the government, policy-makers as well as manufacturers association of Nigeria (MAN), SMEDAN other business practitioners in making or formulating very important policies that could aid in improving the general performance and sustainability of the Nigerian SMEs. Thus, from the review of the important literature, the present study has identified that SMEs are lacking the required finances; and are also operating their business in an unfriendly business environment that served as a catalyst of SMEs' underperformance (SMEDAN, 2012).

Therefore, owner/ managers need to understand the important role played by the implementation of TQM properly in achieving their business objective of an increase in the performance of their respective firms. Likewise, the owner/managers should also understand that the more market-oriented a business firm is, the higher the chances of its performance increase in business operations. Accordingly, owner/managers need to be highly innovative, proactive and keen on risk-taking for the purpose of venturing into business operations in a strategic manner so as to achieve the desired objective(s).

Even though, the Nigerian government has several funding programs together with the other support agencies that give a lot of assistance to SMEs (SMEDAN, 2012).

However, lack of consciousness or awareness about such government support programs may serve a reason that most of the owner/ managers of the Nigerian SMEs are not reaping those benefits they supposed to from these agencies or organizations. Thus, even those agencies that are fully identified by the owner/managers, they are not well organized and coordinated so as to guide the SMEs, for one reason or the other. Therefore, this shows that there is the need for the Nigerian government to properly improve its programs coordination among these various governmental agencies or institutions to make them well-known to the various SMEs' stakeholders through capacity building programs, publicity, advertisements, Training and workshops among others.

In addition, considering at the strains (difficulties) in sourcing finances from both internal as well as external sources, those governmental agencies should foster their encouragement and support to SMEs in order to utilize their strategic abilities to improve their sources of finances internally, since one of the banks' rationales for not disbursing loans to SMEs or even if the banks are providing such loans then it will be with the high rate of interest and high demand for collateral securities due to the risk attached to repayment of such disbursed loans. Thus, having a substantial amount of retained earnings, turnovers' cash flow, and a reasonable amount of profit (retained earnings), may encourage those financial institutions to offer financial services at a reasonable interest rate to SMEs. As such, it is also suggested by the researcher that the government functionaries at all levels together with their agencies should give encouragement to SMEs so as to reorganize their strategic orientations in improving their sources of finances internally. In essence, SMEs should be encouraged to apply

for external sources of financing if necessary, from the financial institutions by reducing their interest rates and stringent conditions for their demand of collateral securities requirements.

Likewise, the findings of the study showed that the significant positive relationship amid TQM practices and SMEs' performance in Nigeria. Thus, the results of the study indicate the need to enhance the involvement as well as participation in the implementation of total quality management. In specific term, the owner/ managers of SMEs have to develop rewarding system formally and at the same time give recognition to the systems for the purpose of encouraging employee involvement as well as participation, in decision making and employees' teamwork support system (Demirbag *et al.*, 2006). The present study result finding also proposes the need for top management commitment for the purpose of proper total quality management practice implementation. Accordingly, the SMEs' top-level management should cultivate an appropriate and suitable organizational culture, together with the vision, and quality policy so as to satisfy the aspirations and expectations of their customers which will eventually improve the performance of their organizations.

In addition, owner/ managers should properly implement TQM practice, which will improve programmes that can lead to better quality delivery of materials from their suppliers, and at the same time to have an improved reliable delivery of materials as well as a component from their suppliers. More so, owner/ managers should properly implement TQM practices that will surely reduce the waste of the firm's resources and reduce the unnecessary delay of time in the process of their production or

rendering services. Similarly, owner/ managers should also have the willingness in involving their employees in the decision-making process principally in quality improvement programmes of their product (s), training their staff and give encouragement via teamwork improvement. In the same vein, owner/managers will really have a reduction in waste or non-value-added activities as well as time delay eradication in manufacturing and designing their products throughout their production processes as well as having all tendencies of developing a very close contact amid manufacturing department and customers resulting from TQM implementation practices.

Furthermore, the result of the findings had shown that MO has an effective influence on access to finance of SMEs which foster positive effect of their performance. Hence, in order to improve the performance of SMEs, owners- managers as representatives of the firms should always put in their best in increasing the MO's level which in turn will improve their sources of finances that will pave the way to better business firm's performance. This is due to the fact that, MO has proven in this study to encourage access to finance. Therefore, it will be of importance to SMEs in improving their firm performance. In order to increase the MO's level, there is a need for SMEs to have some valid information of their target competitors, customers and their target markets in general coupled with their better understanding. In essence, this better information will provide an assistance to the SMEs in increasing their sales' volume as well as their profit margin, together with their market share and that of their competitive advantages via the superior value offering to both their real and its potential customers. Therefore, by being SMEs' market-oriented business firms,

they are expected to develop a culture that improves their financings' ability more than promoting their understanding in the markets, customers or even competitors.

In another development, owner/managers should understand and satisfy the needs and wants of their customer as well as being thoughtful about the market condition via information gathering on the actions of their competitors. Furthermore, owner/managers should also respond to the condition of the market and the competitive environment in which they operate based on the sufficient information they possess in the market they operate. So, those market-oriented owner/ managers should seek to create value-added customer products as well as proper understanding of the needs of their customers at the same time served the customer with the right product they needed than those of their competitors. More so, those market-oriented owner/managers should strive in the provision of customer's satisfaction as well as rendering after sales services.

Additionally, those owner/ managers that are market-oriented has to be very good in the Salespersons information sharing about their competitors and at the same time responds quickly to the actions of their competitors better than those business firms that are not market-oriented. Similarly, those owner/ managers that are market-oriented should respond quickly to the competitors' actions better than those SMEs that are not market-oriented. Therefore, market-oriented owner/ managers, strategic thinking can easily motivate their real customers not to only have a repeated purchase but also to even attract other potential customers to purchase the firms' product at first instance and even to continue patronizing that firm's products. Therefore, those

market-oriented owner/ managers should increase the turnover of their firms that will eventually enhance the performance of their business due to the after-sales service strategy. Consequently, those market-oriented owner/ managers should strive to achieve their objectives or goals and at the same time boost their intended performance better than those that of their competitors that are not market-oriented.

Accordingly, the issue of EO as another important significant predictor of the performance of SMEs. This study's findings have practical implications for the Nigerian SMEs. In specific, findings of this study show that innovativeness, proactiveness and risk-taking have appeared as important strategies that enable better capability for SMEs so as to exploit the new investment opportunities in the Nigerian economy particularly in the business environment of Nigeria, thus achieving sustainable competitive advantage (Dai, Maksimov, Gilbert, & Fernhaber, 2014; Gupta, & Pandit, 2013; Kreiser, & Davis, 2010). Accordingly, SMEs owner/managers have to realize that idea generation, new product development, as well as research and development capabilities will play a very vital role in the business

Finally, the result findings of this study also portray that access to finance moderated the relationships between total quality management, market orientation, entrepreneurial orientation, and performance of SME. Hence, Kennerley, Neely, and Adams (2003), were of the view that the external environment in which the business firms operate competitively is dynamic as well as rapidly changing, thus, it is essential for the SMEs' owner/ managers to constantly scan their business

environment, modify their business strategies and business operations so as to replicate these increasing business environmental changes. Accordingly, the present study also contributed the SMEDAN particularly in realizing that, given the emphasis on access to the financial resource is of paramount importance to the owners/managers of SME which will consequently boost their firm performance.

5.4.3 Methodological Contributions

Beside the theoretical and practical contributions, the present study also places some other methodological contributions, thus the present study examined construct validity of five variables (i.e., total quality management, market orientation, entrepreneurial orientation, access to finance, and SME performance). Accordingly, these instruments used in this study were adapted from other studies that are well-established and also considered as widely-used measurement instruments of the total quality management, market orientation, entrepreneurial orientation, access to finance, and SME performance. However, some researchers had conducted their studies, using some of the present study's variables with different statistical tools of analysis such as SPSS (Multiple Regression), scholars like (Shehu, 2014; Jabeen, 2014). While, some researchers used SEM as their tools of analysis such as (Wang, Cheng & Chen, 2012). Therefore, very few studies if any had used Smart PLS3.0 as a tool of analysis in the Nigerian context, hence this study contributed methodologically.

5.5 Limitation and Suggestions for Future Research

Despite numerous significant contributions highlighted in the present study with the regards to the performance of SMEs, yet it has many limitations that warrant to be identified. In the first instance, this study as a behavioural science research, the potential problem as opined by Podsakoff *et al.*, (2003), is that of common method variance that served as one of this study's possible limitations. However, in the present study, Harman's single factor analysis was used in order to test the common method bias, it had been established that this particular study is free from this problem. Nevertheless, future research can collect data from multiple stakeholders such as owners/ managers and other business financiers for each and every business firm separately, so as measurement errors can be minimized.

The second limitation of the present study centres on SMEs that are operating their business activities in the north-western zone of the Nigeria economy, in which it does not comprise with those SMEs that are operating their business activities in the other parts of the Nigerian economy. Though, the Nigerian SMEs share similar demographic characteristics, for instance, ownership type, nature of the business, number of employees, etc. Thus, the result findings obtained may vary slightly particularly if other geopolitical zones had been co-opted in this survey. So, the result of the present study findings should be generalized to other SMEs that are operating their businesses in another geopolitical of the Nigerian economy with cautions. Furthermore, although the present survey targeted the entire types of SMEs such as manufacturing, service, and agriculture, thus it is also needed to examine the SMEs' performance on the bases of sub-sectors, for instance agriculture, building, and

construction, fishing, mining, hotel and restaurants, education, wholesale and retail, transportation, and so on. Thus, this particular study is limited as a result of its negligence in considering the fact that business firms features can be varied according to the type of business or even a business sector. Therefore, future researchers should take into cognizance with the examining performance of SMEs in other parts of the economy as well as the activities of sub-sector, which in turn may offer further in-depth results.

The third point is that this study adopted a quantitative research method in which it depends on a single means of data collection in the present study. In other words, the only instrument employed in the present study for gathering the data was a questionnaire. So, the owner/ managers as the study's respondents may not at all times be willing to correctly answer the questions in the survey. Hence, the responses may not consistently and accurately measure the study variables. Therefore, it will be interesting if future researchers will adopt mix mode (quantitative and qualitative), in carrying out a thorough investigation of the Nigerian SMEs' performance.

The Fourth limitation of this very study is that it adopted a cross-sectional survey design in which the owner/ managers' views were taken at once. Hence, according to Sekaran and Bougie (2010), cross-sectional data is restricted in ascertaining causality relationships amid the variables thus, this very study cannot be an exception due to the fact that it is cross-sectional nature. As the data of the present study was collected at a particular time at once time, as such, it might not allow the data to represent firms' long-term behaviours. Accordingly, with the regards to these restrictions, it is

suggested by the present study that future research should conduct a longitudinal study. Therefore, by conducting a longitudinal research, it may assist researchers to obtain a more thoughtful view of the subject matter so as to validate the findings from cross-sectional studies.

The Fifth point served as another probable study's limitation that is related to the variables' measurements used in the present research work. However, predictors such as TQM, MO, EO, and AF can provide more information once it can be measured as multi-dimensional. For that reason, future studies need to investigate the relationship amid this study's constructs and business firm performance by using a multi-dimensional scale. For example, TQM was measured in the present study as unidimensional strategic management construct which was originated from the work of Chenhall (1997) scale and adapted from Abubakar and Mahmood (2016); Marin Vinuesa, and Ruiz Olalla (2011). However, future research works can use seven (7) items as multi-dimensional approach so as to investigate the individual effect of each of these seven dimensions. Similarly, in this very study MO was also measured as a uni-dimensional predicting variable which was originated from the work of Calantole (2002); Lin *et al.*, (2008); Narver and Slater (1990), in which it as later adapted from Sulyanto and Rahab (2012). So, future research work needs to examine this particular area by considering those three dimensions of MO as multi-dimensional rather than uni-dimensional approach so that individual effect will be ascertained and also to see how those dimensions affect the performance of the firm exclusively.

Accordingly, EO as one of the strategic orientation constructs was also measured in the present study as a single-dimension, which was originated from work of by Miller and Friesen (1983) and later on developed by Covin and Slevin (1989) scale, as sourced from another strategic orientation guru in the person of Khandwalla (1977) and EO can be measured by using nine (9) items in a single dimension in this study as adapted in relation to the study conducted by Idar and Mahmood (2011) as well as Naala (2016). Accordingly, in this study EO was used as a single construct as earlier mentioned adapted from Idar and Mahmood (2011) which served as a basis, as supported by the studies conducted previously by Al-Swidi and Mahmood (2012); Aminu, (2015); De Clercq, Dimov and Thongpapanl (2010); Mahmood and Hanafi (2013); Richard, Wu and Chadwick (2009); Shehu and Mahmood (2014a). However, future research work needs to examine this particular area by considering EO scale usage as postulated by Lumpkin and Dess (1996), in order to examine the five dimensions of individual effect.

Furthermore, AF was measured in the present study as a single-dimension. Thus, this survey is in line with the recommendations given by Wiklund and Shepherd (2005), which stated that multi-dimensional measurement should be used instead of the single- dimension measurement items that were used by the researcher. In the future, the present survey recommends that future studies should be conducted by using multidimensional items measurements for both internal and external sources of access to finance.

Finally, the present research study examined the moderating effect of access to finance on the relationship between TQM, MO, EO, and performance of the Nigerian SMEs. Even though, the predicting variables tested in this particular study were restricted to the performance of SMEs alone. So, some of the other strategic orientation constructs such as technology orientation, employee orientation, knowledge management, learning orientation and many other SMEs' performance relationships indicators or forces in Nigeria can also be utilized so as to extend this study's proposed framework in the related study. In addition, there is a need for further empirical studies to employs other research design techniques since the researcher used quantitative research approach or design in this study, therefore future researchers may use a qualitative approach or mixed mode approaches so that it could further widen the scope of the present study by using access to finance as moderator in conducting a configurational approach in order to clarify the firm performance variance. In the end, the present study recommends the use of other statistical analysis tools such as a structural equation model (SEM), AMOS and so on, for analyzing future research works data.

5.6 Conclusions

The main objective of the present study is to examine the moderating effect of access to finance on the relationship between TQM, MO, EO, and performance of Nigerian SMEs. So, the first, second as well as the third objectives of the present study are to examine the relationship between total quality management, market orientation, entrepreneurial orientation, and SMEs performance in Nigeria. Thus, all the objectives were achieved as a result of testing the three direct relationship hypotheses. The study

provides empirical of the significant positive relationship between TQM, MO, EO, and SMEs performance. While, the fourth, fifth and sixth objectives of the study are to determine whether access to finance moderate the relationship between total quality management, market orientation, entrepreneurial orientation and SMEs performance.

Therefore, the three hypotheses were tested so as to achieve the specified objectives. The result of the analyses indications that access to finance moderates the relationship between these three constructs (TQM, MO, and EO) and SMEs performance. Even though, the finding of this study in relation to hypothesis six is supported. However, the beta value is negative, thus it signified unexpectedly that owner/managers' access to financial resources does not bring about the positive effect on the entrepreneurial orientation of the SMEs in Nigeria. This is due to the fact that, business does not operate in a vacuum, but it operates within an environment. So, due to the contextual factors with regards to Inflation and Economic recession in the Nigerian economy particularly with regards to the fall in the price of crude oil globally had led unfriendly business environment in spite of the higher access of financial resources obtained by the entrepreneurs of Kaduna, Kano and Sokoto in the North-west geopolitical zone of Nigeria.

Furthermore, the present study provides theoretical contribution as it has examined the moderating effect of AF on the relationship between TQM, MO, EO, and SMEs, performance. Though, this study has also examined the relationship between TQM, MO, EO, and SMEs performance in the context and settings of the Nigerian economy. As such, it was also found that TQM, MO, EO, and AF are fundamental as well as

essential practices for business firms' competitive survival. Thus, the present study suggests that these predictor variables are strongly recommended to be implemented for the purpose of enhancing performance in SME sector. Therefore, the new theoretical knowledge result will foster some benefits to governments at all levels, industry policymakers, SMEDAN, business practitioners and also to serve as a body of knowledge. Similarly, this study also provides methodological contributions in some of the areas that these predictors influence the performance of SMEs. In essence, many directions for future research were provided in terms of this study' limitations on the relationship between TQM, MO, EO, and SMEs performance.



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APPENDIX A

SURVEY QUESTIONNAIRE



Research Title: Moderating effect of access to finance on total quality management, market orientation, entrepreneurial orientation and performance of Nigerian Small and Medium Enterprises.

Objective: To investigate the moderating effect of access to finance on the relationship between total quality management, market orientation, entrepreneurial orientation and performance of Nigerian SMEs

Target: Owner-Managers of SMEs

Dear Respondent

I am a Ph.D. Management (Entrepreneurship) research student in the above university, currently conducting a survey on the above-titled research. The following are the self-explanatory questions that will not take much of your time to answer. Your kind and the objective response would be appreciated as it will significantly contribute towards the achieving of the above-mentioned objective of the study. Please note that your response will be treated as strictly confidential, therefore do not put down your name or your company's name on the questionnaire.

Please do not hesitate to contact the researcher for any inquiry about this research.

Thank you.

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Questionnaire

Section A

Part I: The following statements describe the extent to which your enterprise is interested in your **Total Quality Management** practices.

Please Tick (✓) in the box 1= Strongly disagree and 7 = Strongly agree that matches your view or level of agreement most in each question.

		Response options						
TQ01	Our firm implements programmes to improve the quality delivery of materials and components provided by suppliers.	1	2	3	4	5	6	7
TQ02	Our firm implements programmes to improve the reliable delivery of materials and components provided by suppliers.	1	2	3	4	5	6	7
TQ03	In our firm, there are clear quality goals identified by top-level policymakers, so as to implement those programmes that will reduce waste or non-value-added activities throughout the production process.	1	2	3	4	5	6	7
TQ04	Programs to reduce time delays in manufacturing and designing products are implemented in our firm.	1	2	3	4	5	6	7
TQ05	Our firm involves all the employees in quality improvement programmes, including training and involvement in improvement teams.	1	2	3	4	5	6	7
TQ06	All functional personnel, such as manufacturing, marketing, R & D are Involved in strategy formulation in our firm.	1	2	3	4	5	6	7
TQ07	Our firm develops close contact between manufacturing and customers.	1	2	3	4	5	6	7
TQ08	Our firm implements programmes to coordinate quality improvements between parts of the organization.	1	2	3	4	5	6	7

Part II: The following statements describe the **Marketing** extent of your enterprise that focuses on understanding and meeting customers' needs and wants.

Please Tick (✓) in the box 1= *strongly disagree* and 7 = *strongly agree* that matches your view or level of agreement most in each question.

		Response options						
MO01	Our firm seeks to create value added customer product.	1	2	3	4	5	6	7
MO02	Our firm tries to understand the needs of the customer.	1	2	3	4	5	6	7
MO03	Our firm strives to provide customer satisfaction.	1	2	3	4	5	6	7
MO04	Our firm provides after sales service for customer satisfaction.	1	2	3	4	5	6	7
MO05	Salesperson sharing of information about our firm's competitors.	1	2	3	4	5	6	7
MO06	Our firm responded quickly to the actions of competitors.	1	2	3	4	5	6	7
MO07	Our firm always respond to competitors' strategies taken.	1	2	3	4	5	6	7
MO08	Our firm has a target to create the product competitiveness.	1	2	3	4	5	6	7
MO09	There is coordination across and inside our firm.	1	2	3	4	5	6	7
MO10	There is cooperation between divisions in formulating marketing strategy in our firm.	1	2	3	4	5	6	7
MO11	All parts of our firm participated in the creation of added value for customers.	1	2	3	4	5	6	7

Part III: The following statements describe the extent to which your enterprise is **Entrepreneurially Oriented** in terms of pro-activeness, risk-taking and innovativeness.

Please Tick (✓) in the box 1= *strongly disagree* and 7 = *strongly agree* that matches your view or level of agreement most in each question.

		Response options						
EO01	For the last 3 years, our firm favours a strong emphasis on innovation, research, and development of new products/services.	1	2	3	4	5	6	7
EO02	Our firm often the first to introduce new products/services at a high rate.	1	2	3	4	5	6	7
EO03	In our firm, changes in product or services are usually been quite dramatic.	1	2	3	4	5	6	7
EO04	In dealing with competitors, our firm typically initiates actions which competitors initiate.	1	2	3	4	5	6	7
EO05	Compared with competitors, our firm is very often the first business to introduce new administrative techniques, products/services, operating technologies etc.	1	2	3	4	5	6	7
EO06	Our firm typically adopts very competitive posture	1	2	3	4	5	6	7

	toward competitors.							
EO07	Our firm has a strong proclivity for projects with normal and high-risk rates.	1	2	3	4	5	6	7
EO08	Our firm believes that because of the nature of the environment, bold, wide-ranging acts are necessary to achieve the objectives.	1	2	3	4	5	6	7
EO09	When confronted with decision-making situations involving uncertainty, our firm typically adopts a bold, aggressive posture in order to maximize the probability of exploiting potential opportunities.	1	2	3	4	5	6	7

Part 1V: The following statements describe the possibility of your enterprises improve to **Access Financial** services with minimal or absent of financial and non-financial barriers.

Please **Tick (√)** in the box 1= *strongly disagree* and 7 = *strongly agree* that matches your view or level of agreement most in each question.

		Response options						
AF01	In our firm business is financed with personal funds satisfactorily.	1	2	3	4	5	6	7
AF02	In our firm, the business is financed with the money generated from retained earnings satisfactorily.	1	2	3	4	5	6	7
AF03	In our firm, business is not satisfactorily financed with external financing due to the high-interest rate charges.	1	2	3	4	5	6	7
AF04	In our firm, funds are sourced from family and friend in financing the business.	1	2	3	4	5	6	7
AF05	In our firm, business access financing through lease financing.	1	2	3	4	5	6	7
AF06	In our firm business is satisfied with trade credit facilities enjoyed by our suppliers in financing the business.	1	2	3	4	5	6	7
AF07	In our firm, business is not satisfied with the high collateral requirements imposed accessing external financing.	1	2	3	4	5	6	7
AF08	In our firm, business is not satisfied with its operations due to lack of financial information.	1	2	3	4	5	6	7

Part V: The following statements describe the ability of your enterprises to effectively and efficiently utilize the available resources in order to survive, grow, satisfy customers and contribute to the creation of employment.

Please **Tick** (✓) in the box 1= *strongly disagree* and 7 = *strongly agree* that matches your view or level of agreement most in each question.

		Response options						
FP01	Compared to last 3 years, our product reaches a wider market.	1	2	3	4	5	6	7
FP02	Compared to last 3 years, our firm increases product sales.	1	2	3	4	5	6	7
FP03	Compared to the last 3 years, our firm's profit has decreased.	1	2	3	4		6	7
FP04	Compared to the last 3 years, the level of complaints from our customers has decreased.	1	2	3	4	5	6	7
FP05	Compared to the last 3 years, the number of our employees have increased.	1	2	3	4	5	6	7
FP06	Compared to the last 3 years, the number of our customers have increased.	1	2	3	4	5	6	7



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Section B

Demographic Data: Information about the profile of the respondents and profile of their enterprises.

Please **TICK (✓) ONE BOX ONLY** for each question.

1. Your job position in the enterprise:
 - 1) Owner ☐
 - 2) Manager ☐
 - 3) Owner/manager ☐
2. What is the main line of business in your enterprise
 - 1) Textile ☐
 - 2) Machinery and Electronics ☐
 - 3) Furniture ☐
 - 4) Others ☐
3. Location of main business
 - 1) Kano ☐
 - 2) Kaduna ☐
 - 3) Sokoto ☐
4. How many years has your enterprise been in existence?
 - 1) Less than 5years ☐
 - 2) 5 - 10 years ☐
 - 3) 11 - 15 years ☐
 - 4) More than 15 years ☐
5. Please indicate the range of the number of employees working in your enterprises

- 1) 10 – 49 ☐
- 2) 50 – 199 ☐
6. What is the current ownership/equity type?
 - 1) Sole proprietorship ☐
 - 2) Partnership ☐
 - 3) Limited liability Company, not publicly traded ☐
 - 4) Limited liability Company, publicly traded ☐
7. What is your company's estimated total assets excluding land and building?
 - 1) Between N5m to less than N50m ☐
 - 2) Between N50m to less than N500m ☐



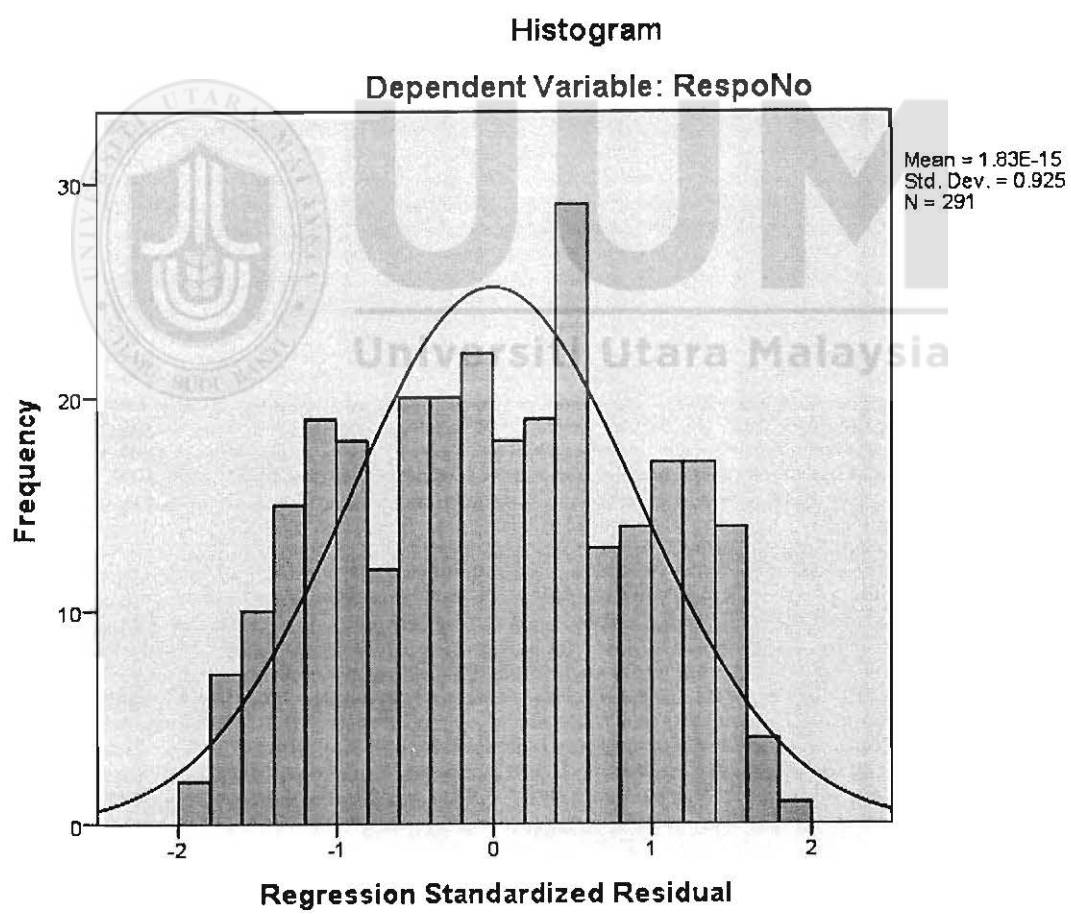
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APPENDIX B
PRELIMINARY ANALYSIS

Result Variables

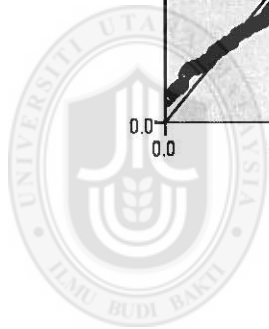
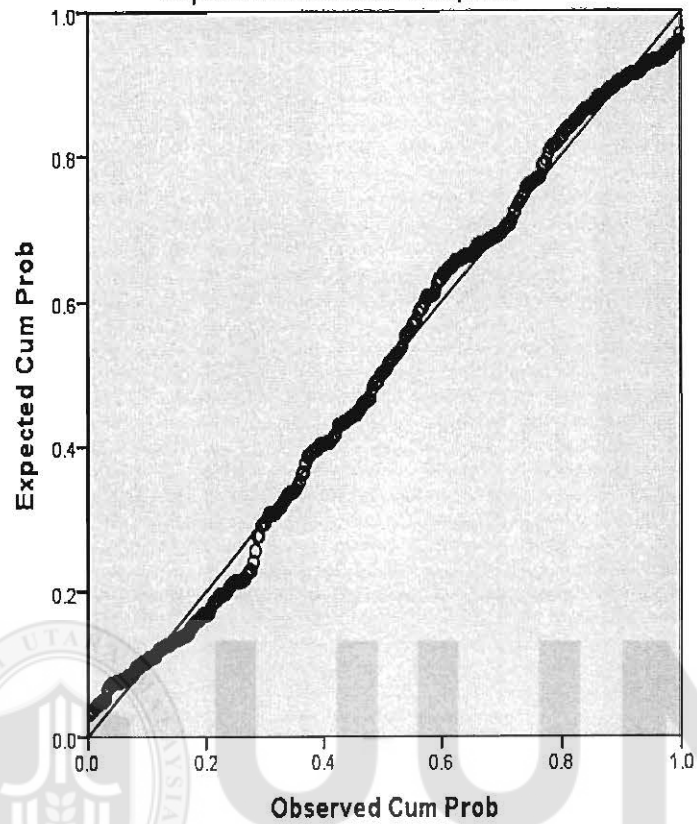
	Result Variable	N of Replaced Missing Values	Case Number of Non-Missing Values		N of Valid Cases	Creating Function
			First	Last		
1	TQ01_1	2	1	302	302	SMEAN(TQ01)
2	TQ02_1	2	1	302	302	SMEAN(TQ02)
3	TQ03_1	1	1	302	302	SMEAN(TQ03)
4	TQ04_1	1	1	302	302	SMEAN(TQ04)
5	TQ05_1	3	1	302	302	SMEAN(TQ05)
6	TQ06_1	3	1	302	302	SMEAN(TQ06)
7	TQ07_1	1	1	302	302	SMEAN(TQ07)
8	TQ08_1	1	1	302	302	SMEAN(TQ08)
9	AF01_1	2	1	302	302	SMEAN(AF01)
10	AF02_1	1	1	302	302	SMEAN(AF02)
11	AF03_1	1	1	302	302	SMEAN(AF03)
12	AF04_1	2	1	302	302	SMEAN(AF04)
13	AF05_1	4	1	302	302	SMEAN(AF05)
14	AF06_1	2	1	302	302	SMEAN(AF06)
15	AF07_1	1	1	302	302	SMEAN(AF07)
16	AF08_1	1	1	302	302	SMEAN(AF08)
17	EO01_1	2	1	302	302	SMEAN(EO01)
18	EO02_1	3	1	302	302	SMEAN(EO02)
19	EO03_1	1	1	302	302	SMEAN(EO03)
20	EO04_1	1	1	302	302	SMEAN(EO04)
21	EO05_1	1	1	302	302	SMEAN(EO05)
22	EO06_1	1	1	302	302	SMEAN(EO06)
23	EO07_1	2	1	302	302	SMEAN(EO07)
24	EO08_1	2	1	302	302	SMEAN(EO08)
25	EO09_1	3	1	302	302	SMEAN(EO09)
26	MO01_1	1	1	302	302	SMEAN(MO01)
27	MO02_1	2	1	302	302	SMEAN(MO02)
28	MO03_1	1	1	302	302	SMEAN(MO03)
29	MO04_1	1	1	302	302	SMEAN(MO04)

30	MO05_1	2	1	302	302	SMEAN(MO05)
31	MO06_1	1	1	302	302	SMEAN(MO06)
32	MO07_1	3	1	302	302	SMEAN(MO07)
33	MO08_1	3	1	302	302	SMEAN(MO08)
34	MO09_1	3	1	302	302	SMEAN(MO09)
35	MO10_1	1	1	302	302	SMEAN(MO10)
36	MO11_1	3	1	302	302	SMEAN(MO11)
37	FP01_1	1	1	302	302	SMEAN(FP01)
38	FP02_1	3	1	302	302	SMEAN(FP02)
39	FP03_1	2	1	302	302	SMEAN(FP03)
40	FP04_1	2	1	302	302	SMEAN(FP04)
41	FP05_1	2	1	302	302	SMEAN(FP05)
42	FP06_1	3	1	302	302	SMEAN(FP06)

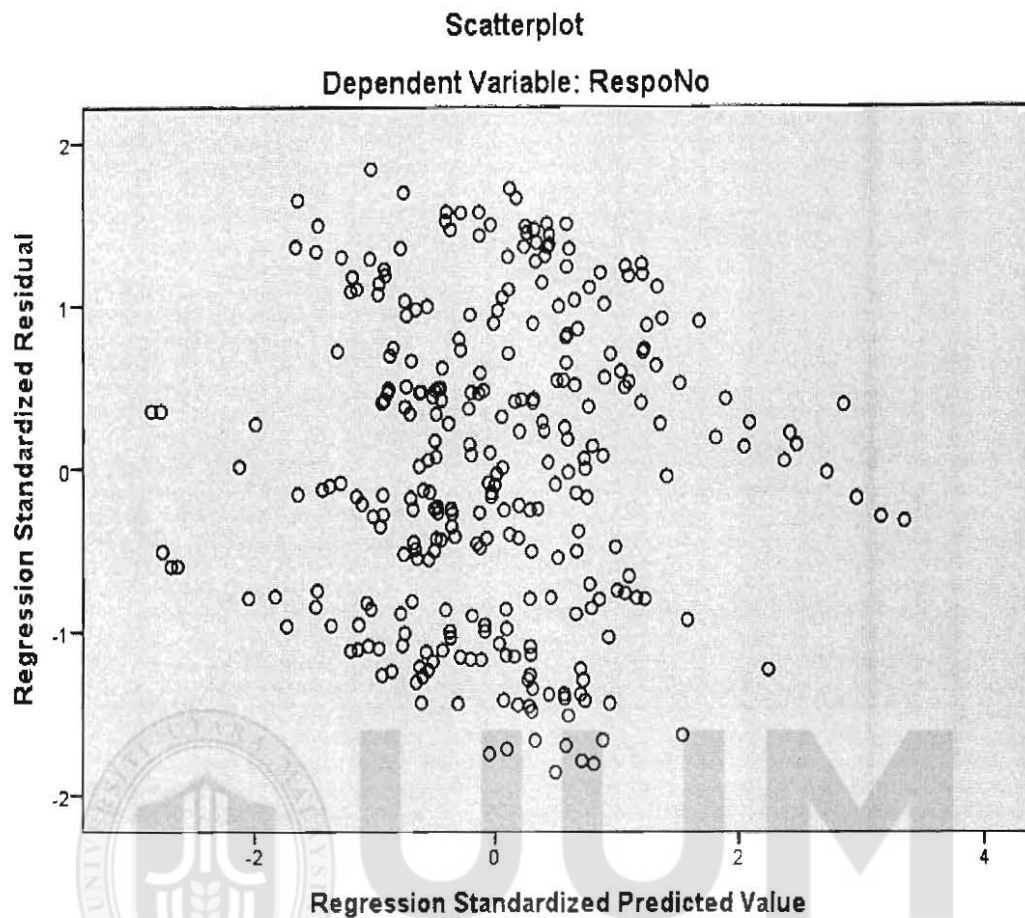


Normal P-P Plot of Regression Standardized Residual

Dependent Variable: RespoNo



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Coefficients

Model		Collinearity Statistics	
		Tolerance	VIF
1	Total_quality_management	.583	1.714
	Market_orientation	.649	1.541
	Entrepreneurial_orientation	.451	2.218

a. Dependent Variable: RespoNo

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Total_quality_management	Equal variances assumed	.895	.345	.583	289	.560	.09205	.15776	-.21846	.40255
	Equal variances not assumed			.585	288.993	.559	.09205	.15734	-.21763	.40172
Market_orientation	Equal variances assumed	2.336	.127	.970	289	.333	.11951	.12321	-.12298	.36201
	Equal variances not assumed			.966	279.191	.335	.11951	.12373	-.12405	.36308
Entrepreneurial_orientation	Equal variances assumed	.015	.904	1.377	289	.170	.20857	.15149	-.08959	.50674
	Equal variances not assumed			1.377	287.544	.170	.20857	.15146	-.08954	.50669
Access_to_finance	Equal variances assumed	.594	.441	1.050	289	.295	.17650	.16809	-.15434	.50733
	Equal variances not assumed			1.051	288.263	.294	.17650	.16793	-.15403	.50702

SME_performance	Equal variances assumed	1.517	.219	1.611	289	.108	.30536	.18951	-.06764	.67836
	Equal variances not assumed			1.614	288.832	.108	.30536	.18914	-.06691	.67763

Group Statistics

	Grouping	N	Mean	Std. Deviation	Std. Error Mean
Total_quality_management	1	140	4.5038	1.29428	.10939
	2	151	4.4118	1.38969	.11309
Market_orientation	1	140	3.6818	1.10977	.09379
	2	151	3.5623	.99164	.08070
Entrepreneurial_orientation	1	140	4.4838	1.28799	.10886
	2	151	4.2752	1.29414	.10532
Access_to_finance	1	140	4.4577	1.41372	.11948
	2	151	4.2812	1.45001	.11800
SME_performance	1	140	5.0595	1.57139	.13281
	2	151	4.7542	1.65488	.13467

APPENDIX C

SMART PLS OUTPUT

OUTER LOADINGS

	1Total Quality Management	2Market Orientation	3Entrepreneurial Orientation	4Access to Finance	5SME Performanc e
AF04_1				0.867	
AF05_1				0.951	
AF06_1				0.927	
AF07_1				0.845	
EO01_1			0.911		
EO02_1			0.885		
EO03_1			0.878		
EO04_1			0.802		
EO05_1			0.942		
FP01_1					0.852
FP02_1					0.848
FP03_1					0.903
FP04_1					0.932
FP05_1					0.906
FP06_1					0.793
MO01_1		0.859			
MO02_1		0.865			
MO03_1		0.868			
MO04_1		0.926			
MO05_1		0.921			
MO06_1		0.843			
TQ02_1	0.852				
TQ03_1	0.869				
TQ04_1	0.895				
TQ05_1	0.878				
TQ06_1	0.786				
TQ01_1	0.874				

Construct Reliability and Validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
1Total Quality Management	0.930	0.935	0.944	0.739
2Market Orientation	0.942	0.956	0.954	0.776
3Entrepreneurial Orientation	0.930	0.934	0.947	0.783
4Access to Finance	0.920	0.925	0.944	0.808
5SME Performance	0.937	0.941	0.951	0.763

	1Total Quality Management	2Market Orientation	3Entrepreneurial Orientation	4Access to Finance	5SME Performance
1Total Quality Management	0.860				
2Market Orientation	0.481	0.881			
3Entrepreneurial Orientation	0.646	0.715	0.885		
4Access to Finance	-0.789	-0.616	-0.854	0.899	
5SME Performance	0.772	0.597	0.808	-0.841	0.874

Cross Loadings

	1Total Quality Management	2Market Orientation	3Entrepreneurial Orientation	4Access to Finance	5SME Performance
AF04_1	-0.750	-0.372	-0.734	0.867	-0.804
AF05_1	-0.790	-0.594	-0.821	0.951	-0.801
AF06_1	-0.619	-0.586	-0.801	0.927	-0.727
AF07_1	-0.664	-0.687	-0.710	0.845	-0.679
EO01_1	0.630	0.692	0.911	-0.749	0.735
EO02_1	0.645	0.639	0.885	-0.788	0.746
EO03_1	0.556	0.611	0.878	-0.744	0.643
EO04_1	0.440	0.513	0.802	-0.696	0.674
EO05_1	0.574	0.697	0.942	-0.797	0.764
FP01_1	0.657	0.532	0.717	-0.712	0.852
FP02_1	0.634	0.464	0.678	-0.707	0.848
FP03_1	0.622	0.511	0.795	-0.811	0.903
FP04_1	0.768	0.567	0.733	-0.824	0.932

FP05_1	0.719	0.568	0.693	-0.725	0.906
FP06_1	0.639	0.479	0.607	-0.612	0.793
MO01_1	0.404	0.859	0.611	-0.531	0.551
MO02_1	0.376	0.865	0.656	-0.567	0.567
MO03_1	0.288	0.868	0.596	-0.448	0.375
MO04_1	0.587	0.926	0.658	-0.634	0.619
MO05_1	0.443	0.921	0.707	-0.589	0.554
MO06_1	0.376	0.843	0.517	-0.423	0.403
TQ02_1	0.852	0.326	0.359	-0.495	0.532
TQ03_1	0.869	0.322	0.410	-0.616	0.664
TQ04_1	0.895	0.389	0.549	-0.647	0.624
TQ05_1	0.878	0.427	0.646	-0.773	0.709
TQ06_1	0.786	0.491	0.767	-0.837	0.784
TQ01_1	0.874	0.490	0.501	-0.608	0.593

R-SQUARED

	R Square	R Square Adjusted
5SME Performance	0.774	0.771

F-SQUARED

	1Total Quality Management	2Market Orientation	3Entrepreneurial Orientation	4Access to Finance	5SME Performance
1Total Quality Management					0.161
2Market Orientation					0.001
3Entrepreneurial Orientation					0.112
4Access to Finance					0.062
5SME Performance					

Mean, STDEV, T-Values, P-Values

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Access to Finance -> SME Performance	-0.213	-0.211	0.066	3.210	0.00 1
Entrepreneurial Orientation -> SME Performance	0.257	0.259	0.069	3.741	0.00 0
Market Orientation -> SME Performance	0.125	0.124	0.057	2.205	0.01 4
Moderating Effect 1 -> SME Performance	0.096	0.096	0.010	9.237	0.00 0
Moderating Effect 2 -> SME Performance	0.093	0.091	0.022	4.192	0.00 0
Moderating Effect 3 -> SME Performance	-0.129	-0.126	0.023	5.491	0.00 0
Total Quality Management -> SME Performance	0.370	0.367	0.036	10.182	0.00 0

Q-SQUARED

SSO	SSE	Q ² (=1-SSE/SSO)
1,746.000	1,746.000	
1,746.000	1,746.000	
1,455.000	1,455.000	
1,164.000	1,164.000	
1,746.000	785.268	0.550

	SSO	SSE	Q ² (=1-SSE/SSO)
Access to Finance	1,164.000	1,164.000	
Entrepreneurial Orientation	1,455.000	1,455.000	
Market Orientation	1,746.000	1,746.000	
Moderating Effect 1	6,984.000	6,984.000	
Moderating Effect 2	6,984.000	6,984.000	
Moderating Effect 3	5,820.000	5,820.000	
SME Performance	1,746.000	721.103	0.587
Total Quality Management	1,746.000	1,746.000	

APPENDIX D

Publications from the Ph.D. Research

1. Rogo, H. B., Shariff, N. M., Hafeez, M. H. (2017a). Empirical Investigation on the Relationship between Strategic Orientations and SMEs Performance in Nigeria a. *European Journal of Business and Management*, 9(20), 62-72.
2. Rogo, H. B., Shariff, M. N. M., & Hafeez, M. H. (2017b). Moderating Effect of Access to Finance on the Relationship between Total Quality Management, Market Orientation, and SMEs Performance: A Proposed Framework. *International Review of Management and Marketing*, 7(1), 119-127.
3. Rogo, H. B., Noor, M., Shariff, M., & Hafeez, M. H. (2018). Investigating the Effect of Entrepreneurship Development on the Relationship between Market Orientation, Total Quality Management and SMEs Performance in Kano. *International Journal of Supply Chain Management*, 7(2), 107-115.

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